

1950
8979

BUSINESS WEEK

INDEX ON
PAGE 22

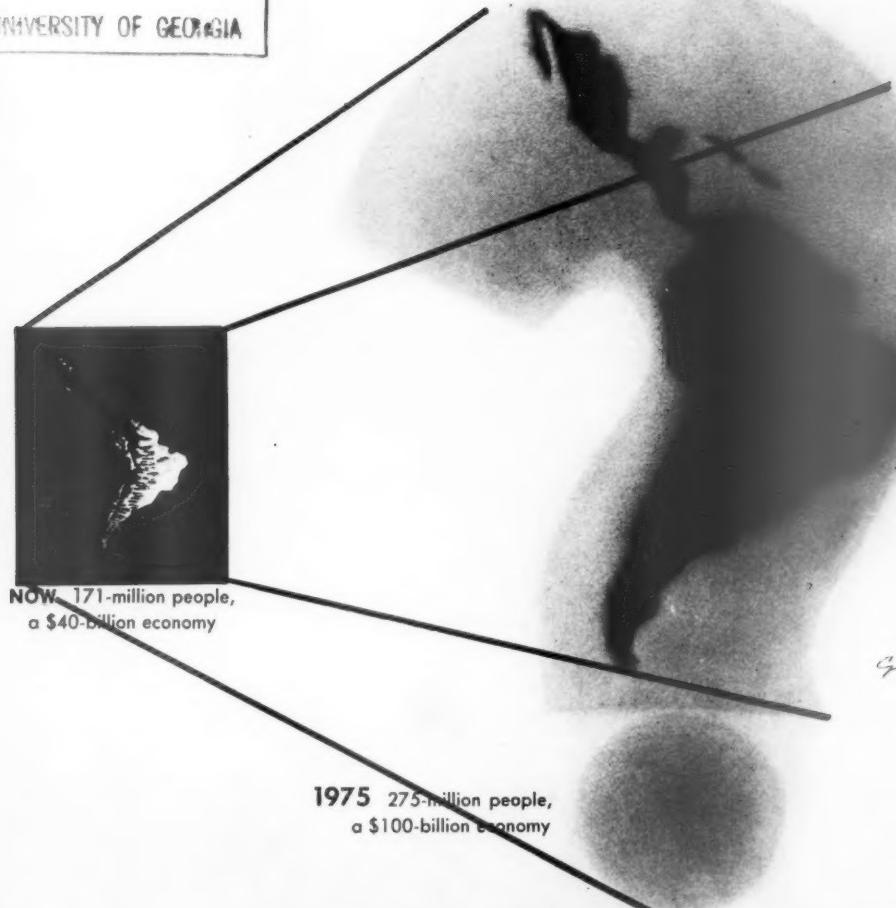
GENERAL LIBRARY
A Surging Market in Latin America

NOV 29 1954

UNIVERSITY OF GEORGIA



INDEX
YEAR
AGO

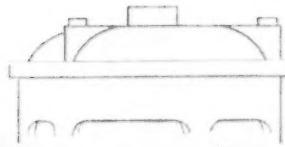


How Can U.S. Business Grow With It? (page 142)

A McGRAW-HILL PUBLICATION

NOV. 20, 1954





It's Chemigum that armors chemical workers longer

HELPING HANDS for chemical workers that stay on the job longer are these heavy-duty rubber gloves of CHEMIGUM—the easy-processing, oil- and chemical-resistant rubber. They are made by multiple dipping the solution of rubber cement onto the porcelain forms.

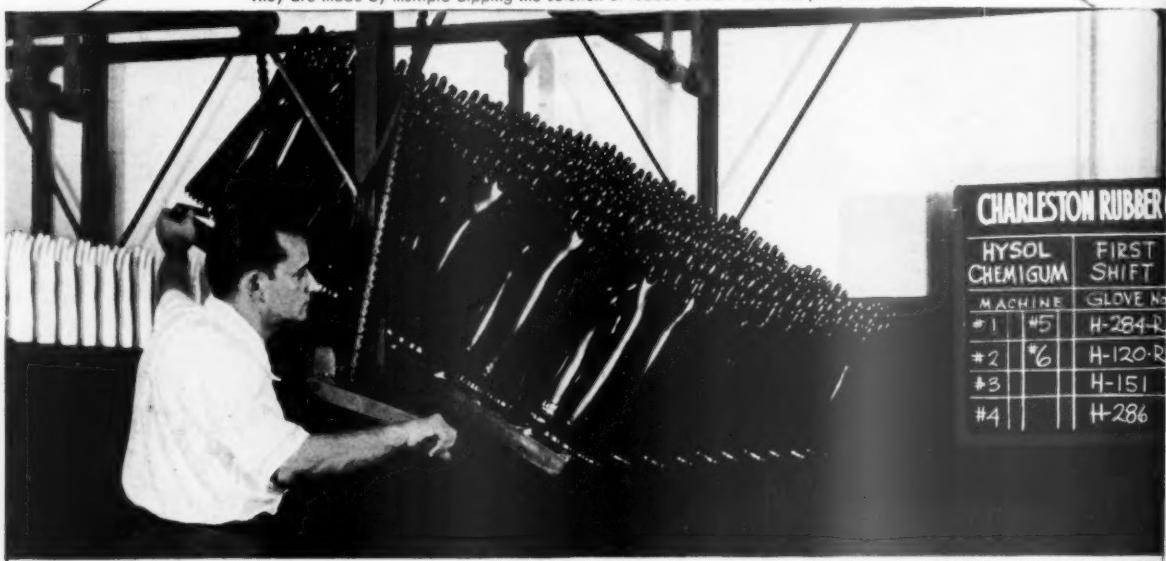


Photo courtesy Charleston Rubber Company, Charleston, S. C.

RUBBER gloves have long been used to protect chemical workers against the injurious effects of acids, alkalies and solvents, but not without problems. Ordinary rubbers could not withstand the deteriorating attack, while those that did, often presented problems in production.

What was needed was a rubber that was tough, long wearing and chemical-resistant, yet soft and flexible, plus having the ability to be easily processed on conventional equipment. The solution really was a solution of CHEMIGUM — the nitrile rubber

noted for its ease of processing and outstanding physical properties.

CHEMIGUM gave the manufacturer a more rapid, more uniform solution which was readily turned into comfortable, durable gloves with the necessary physical and chemical characteristics. And that's just another case of CHEMIGUM doing a job other rubbers could not do. How can it help you? Details from the foremost supplier of synthetic rubbers and related resins are yours by writing to:

Goodyear, Chemical Division,
Dept. W-9415, Akron 16, Ohio.



"Hy-Sol"—T.M. Charleston Rubber Company

Chemigum, Pliobond, Pliolite, Plio-Tuf, Pliovic—T.M.'s
The Goodyear Tire & Rubber Company, Akron, Ohio

Use-Proved Products—CHEMIGUM • PLIOBOND • PLIOLITE • PLIO-TUF • PLIOVIC • WING-CHEMICALS—The Finest Chemicals for Industry



"If he'd only call her up..."

"I'm sad, too, when she's upset. If he'd only call her up everything would be all right. Just one little telephone call can save so much time and worry."

BELL
TELEPHONE
SYSTEM





*Added Evidence
that...*

Everyone Can Count on **VEEDER-ROOT**

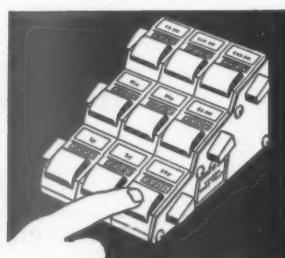
In figuring out new systems of automatic electrical control, Veeder-Root Control can supply vital connecting links. For instance, this Predetermining Counter can be hooked into such a system to light a light, ring a bell, or actuate a mechanism to stop a machine or process *at any pre-set point*. And there are many other Veeder-Root Counters that can serve as "count-ponents" in almost any way desired. Or special counters can be designed for specific applications. Engineers in any industry, now engaged in working out automatic control systems, can count on Veeder-Root engineers to work with them on any problem where reliable facts-in-figures are needed.

VEEDER-ROOT INCORPORATED • Hartford 2, Connecticut



Chicago 6, Ill. • New York 19, N. Y. • Greenville, S. C. • Montreal 2, Canada
Dundee, Scotland • Offices and Agents in Principal Cities

"The Name That Counts"



New Vary-Tally Multiple-Unit Reset Counter comes in any combination up to 6 banks high, and 12 units wide. Write for news sheet and prices.

B U S I N E S S W E E K

EDITOR & PUBLISHER Elliott V. Bell
MANAGING EDITOR Kenneth Kramer

ASSISTANT MANAGING EDITOR Robert B. Colborn
ASSOCIATE MANAGING EDITORS John L. Cobbs, Peter French, Eugene Miller

DEPARTMENTS

Business Outlook: Clark R. Pace, *Editor*; Robert H. Persons, Jr.
Commodities: Gertrude Charloff, *Editor*

Finance: William McKee Gillingham, *Editor*; Paul D. Gesner, David B. Carlson, Jr.
Foreign: Howard Whidden, *Editor*; Paul R. Miller, Jr.

Industrial Production: Charles M. Garvey, *Editor*; David C. Allison

Labor: Merlyn S. Pitzele, *Editor*; Edward T. Townsend

Management: Richard L. Waddell, *Editor*; Richard M. Wight

Marketing: Carl Rieser, *Editor*; Cora Carter, John C. L. Donaldson

Personal Business: Guy Shipley, Jr., *Editor*; Ann Massie

Research: George J. Gray, Jr., *Editor*

Illustration: Harry Jensen, Kate McSweeney, *Editors*; Robert Iscar (Pictures-Photography), Bernard R. Clorman, Herbert F. Kratovil, Jomary Mosley, Arthur Richter

Regions: Frank J. Fogarty

Statistics: Elsa Denno

The Trend: M. J. Rossant

Library: Dorothy Roantrie, *Librarian*; Emily Cherry, Ruth Shalvay

Assistant to the Editor & Publisher: John F. Hartshorne

NEWS EDITORS

T. B. Crane (*Senior News Editor*), Robert F. Deed, D. A. Drennen, Maxwell D. Gunther, Lawrence H. Odell, Doris I. White

EDITORIAL ASSISTANTS

Mary T. Beckerle, Edward J. Burgess, Jr., Mary M. Burgess, Jean Drummond, Barbara Kleban, Alice Marks, Jacqueline M. Pitcher

ECONOMICS STAFF

Dexter M. Keezer, *Director*; William H. Chartener, Peter J. Davies, Richard Everett, Douglas Greenwald, Margaret Matulis, Dora K. Merris, Robert P. Ulin

DOMESTIC NEWS SERVICE

Atlanta Bureau: Wm. H. Kearns, *Manager*

Boston Bureau: Paul Finney, *Manager*

Chicago Bureau: James M. Sutherland, *Manager*; Mary B. Stephenson, Dorothy Miller

Cleveland Bureau: Robert E. Cochran, *Manager*; Wm. N. Troy

Detroit Bureau: William Kroger, *Manager*; Susan Tower

Houston Bureau: Normand DuBeau, *Manager*; Mary Schiflett

Los Angeles Bureau: Thomas M. Self, *Manager*; Lorraine M. Lemmon

Philadelphia Bureau: W. B. Whichard, Jr., *Manager*; Esther A. Schultz

Pittsburgh Bureau: Richard N. Larkin, *Manager*

San Francisco Bureau: Richard Lamb, *Manager*; Joanne O'Brien

Toronto Bureau: Werner Renberg, *Manager*

Washington Bureau: George B. Bryant, Jr., *Manager*; Glen Bayless, Alan E. Adams, Carter Field, Jay Flocken, Boyd France, William Gilmour, Sam Justice, Donald O. Loomis, Gladys Montgomery, Arthur L. Moore, E. William Olcott, Morton A. Reichel, Caroline Robertson, John T. Skelly, Vincent Smith.

Correspondents: Akron, Albany, Austin, Baltimore, Birmingham, Buffalo, Charleston, Charlotte, Cincinnati, Columbus, Dallas, Denver, Des Moines, Duluth, Fort Worth, Greensboro, Hartford, Jacksonville, Kansas City, Knoxville, Little Rock, Louisville, Memphis, Miami, Milwaukee, Minneapolis, Nashville, New Orleans, Oklahoma City, Omaha, Orono, Phoenix, Portland (Ore.), Providence, Richmond, Rochester, Salt Lake City, San Antonio, San Diego, Seattle, St. Louis, Syracuse, Toledo, Wilmington, Worcester, Honolulu. Correspondent Relations: Dorothea Schmidt

FOREIGN NEWS SERVICE

Editor: Joseph K. Van Denburg, Jr.

Mexico City: John Wilhelm

Bonn: Gerald W. Schroder

Paris: John O. Coppock

London: Edward W. S. Hull

Sao Paulo: Lionel J. Holmes

Manila: Herbert Leopold

Tokyo: Dan Kursman

Correspondents: Amsterdam, Athens, Bangkok, Beirut, Belgrade, Bogota, Bombay, Brussels, Buenos Aires, Cairo, Caracas, Ciudad Trujillo, Copenhagen, Djakarta, Durban, Geneva, Guatemala City, Havana, Helsinki, Istanbul, Johannesburg, Karachi, La Paz, Lima, Madrid, Melbourne, Oslo, Ottawa, Panama City, Quito, Reykjavik, Rome, Salzburg, San Juan, San Salvador, Santiago, Stockholm, Sydney, Tehran, Tel Aviv, Wellington, Winnipeg.

ADVERTISING DIRECTOR Herman C. Sturm

ADVERTISING MANAGER John M. Holden

BUSINESS MANAGER Richard E. McGraw



BUSINESS WEEK • NOV. 20 • NUMBER 1316

(with which are combined *The Analyst* and *The Magazine of Business*) • Published weekly by McGraw-Hill Publishing Company, Inc. James H. McGraw (1860-1948). Founder • Publications Office: 350 Madison Avenue, New York 17, N. Y. • Editorial, Executive and Advertising Offices: 330 West 42nd St., New York 36. • Executive Vice-President: Willard C. Gersten, Vice-President and Treasurer: John J. Cooke, Secretary: Montgomery Executive Vice-President, Publications Division: Robert B. Miller, Vice-President and Editorial Director: Nelson Bond, Vice-President and Director of Advertising. Send all correspondence regarding subscriptions to J. E. Blackburn, Jr., Vice-

President and Director of Circulation, *Business Week*, 55-125 N. Broadway, Albany 1, N. Y., or 330 West 42nd St., New York 17. Allow one month for change of address.

Subscriptions to *Business Week* are accepted only from business firms, business and industry. Position and company connection must be indicated on subscription orders.

Subscription rates—United States and possessions \$6.00 a year; \$12.00 for three years. Canada \$7.00 a year; \$14.00 for three years. Other Western Hemisphere countries and the Philippines \$10.00 a year; \$50.00 for three years. All other countries \$25 a year; \$50.00 for three years. Entered as second class matter Dec. 19, 1917, at the Post Office, Albany, N. Y., under Act of Mar. 3, 1879. © Printed in U. S. A. Copyright 1954 by McGraw-Hill Publishing Co., Inc. — All Rights Reserved.

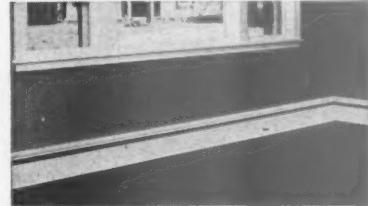


Part of the 147-house project at Cedarcrest, a charming, wooded section of Canton, Mass. Ranch houses, priced from \$10,400, have heating comfort of custom-built homes. Builder: Frank Losordo Sons, Inc., Hyde Park, Mass. Heating Contractor: Frank Losordo.

\$10,400 Ranch Home with Webster Tru-Perimeter Heating

Frank Losordo builds these 3-bedroom ranch houses, size 36x24 feet, to sell for \$10,400, with Webster Tru-Perimeter Forced Hot Water Baseboard Heating . . . Says, "The low cost operation of a good heating system is a big sales factor."

Heating is gentle and draft-free . . . Picture window areas are completely comfortable . . . There's no loss of floor or wall space, no "heating" in sight, nothing to interfere with furniture decoration . . . Wasteful overheating is avoided.



Webster Tru-Perimeter Forced Hot Water Baseboard Heating offsets heat loss beneath large window areas and along all exposed walls.

First choice for custom-built homes, Webster Baseboard Heating also meets requirements of quality operation builders. There is a minimum of piping, no air ducts, radiators or registers. Write for folder, "Wonderful Webster Baseboard Heating."

Address Dept. BW-11

WARREN WEBSTER & CO.
 Camden 5, N. J. Representatives in Principal Cities
In Canada, Darling Brothers, Limited, Montreal

Webster
 TRU-PERIMETER FORCED HOT WATER
 BASEBOARD HEATING

AND

Webster Heating Equipment includes Webster Walvector also used in Tru-Perimeter Heating; Convector; Steam Heating Specialties for heating and process applications; Webster Moderator Systems of Steam Heating and continuous flow controls for hot water heating — both with outdoor thermostat; Unit Heaters. Data on request.

Green Light for Copper

New mines, new mining methods assure
U. S. Industry a new era of plenty
for an amazing metal used 4700 years
ago to fasten a Pharaoh's funeral ship

Slender copper nails held cedar planks fast in Cheops' funerary ship*—for almost 5,000 years!

A little nail dramatically makes a big point: *time has virtually no power to destroy copper.*

Today an equally important fact is this: you can't replace copper with any other metal without losing something. For copper and its alloys have many virtues—high thermal and electrical conductivity, ease of machining, forming, drawing, stamping, plating, welding, fabricating, and a high scrap value.

A TIME OF PLENTY

No lack of copper faces the U. S. All the copper we need—for peacetime and preparedness—is there, ready to be mined, refined and fabricated for U. S. industry.

Since World War II, copper producers like Anaconda have been expanding mining operations here and abroad, developing new ore bodies, and revitalizing many existing mines with new methods.

The result? You can now depend on an adequate supply of copper . . . sturdy, rustproof copper to shape the nerves and muscles of our industrial might . . . in wires and cables . . . in pipes and tubing . . . fastenings . . . motor parts . . . and a thousand other industrial uses.

From Egypt's dawn to an atomic age—copper has served well because it has served long. Copper costs least because it talks back to time best!

And U. S. industry now has the green light to use copper—as it wants!

*Discovered near Cheops' pyramid last May.

54298

ANACONDA®

PRODUCERS OF: Copper, zinc, lead, silver, gold, platinum, cadmium, vanadium, selenium, uranium oxide, manganese ore, ferromanganese and superphosphate.

MANUFACTURERS OF: Electrical wires and cables, copper, brass, bronze, and other copper alloys in such forms as sheet, plate, tube, pipe, rod, wire, forgings, stampings, extrusions, flexible metal hose and tubing.





These are significant Anaconda contributions to U. S. progress in metals—1953-1954:

Copper. Anaconda's new open pit copper mine at Weed Heights, Nev., officially opened in Nov., 1953, is now producing 5,000,000 lb. a month.



Aluminum. The new Anaconda reduction plant now being built near Columbia Falls, Mont. Scheduled to start production in mid-1955.



Uranium. Working with the U. S. Government, Anaconda builds a processing plant and develops uranium ore properties in New Mexico.



Chile. At Chuquicamata, huge plant for treating sulphide ores of Chile Exploration Company—an Anaconda subsidiary—is completed.



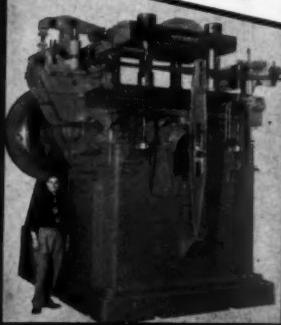
Brass Mills. New pre-formed copper tube grids for radiant panel heating come from The American Brass Co., an Anaconda subsidiary.



Wire Mills. Anaconda Wire & Cable Company expands research and production facilities for turning out its highly engineered line of copper and aluminum electrical conductors.



WHERE IS THE FAMILY RESEMBLANCE?



H&W 350-ton Dieing Machine



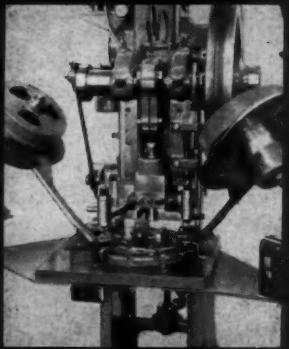
Palletizing

WHEN ONE COMPANY OFFERS SUCH DIVERSE
MACHINERY,
IT
MUST BE A FAMILY RESEMBLANCE.
THE
MACHINERY
IS DESIGNED TO USE THE MINIMUM
AMOUNT
OF
TIME, LABOR, SUPERVISION
AND
LEARN MORE BY SENDING FOR
OUR
CATALOGUE.

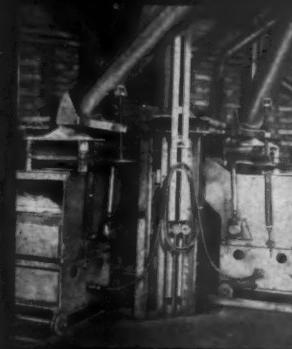
S-K Milk Caser

V&O inclinable presses

H-E "I.S." forming machine



Hopper-fed V&O press

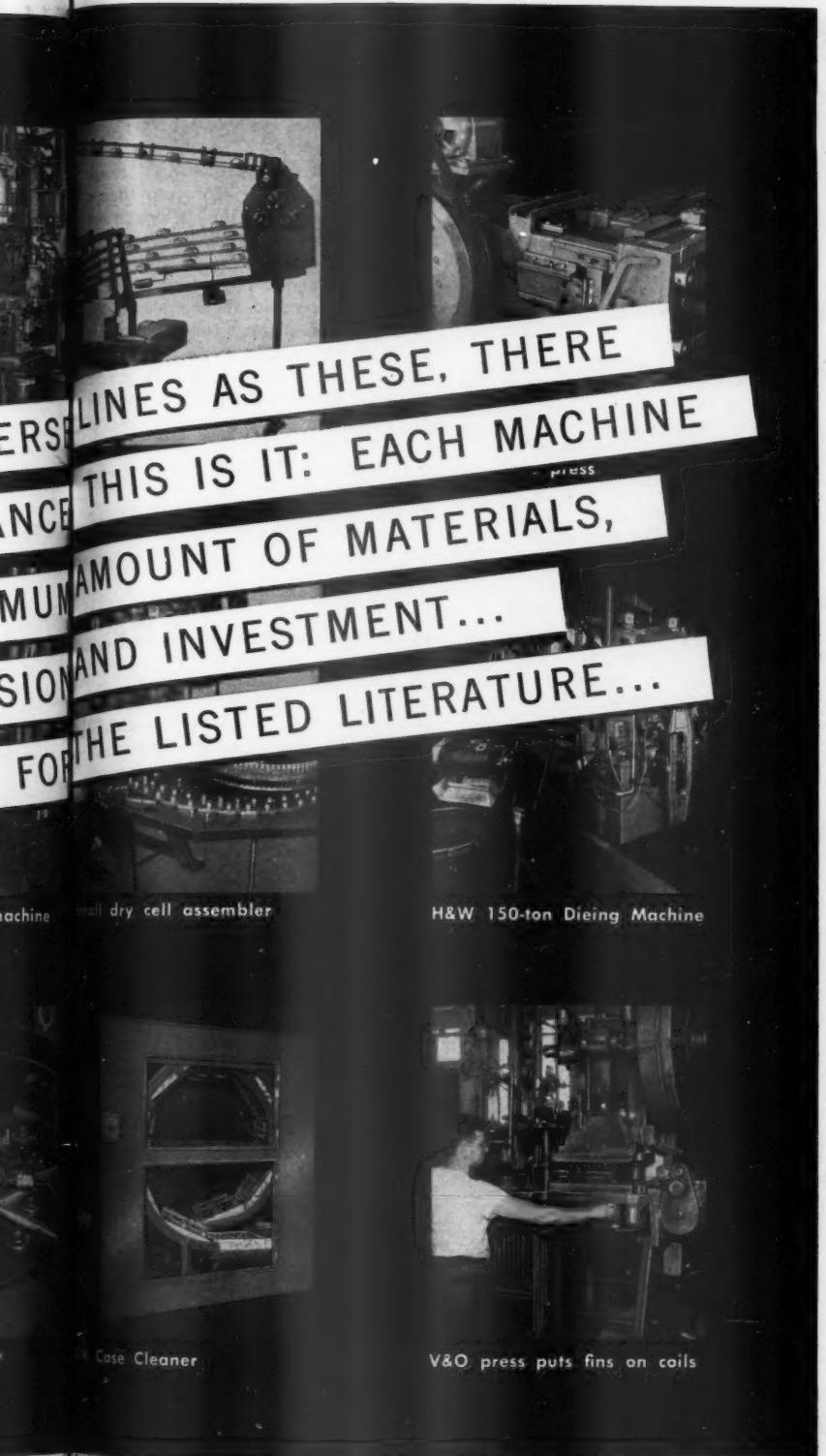


H-E Glass Batch Charger



V&O "Feed-O-Matic"

EMHART MFG. CO.



Only the best is good enough

NEW LITERATURE

Check any product information you want and mail this coupon to any Emhart unit listed below . . .

HENRY & WRIGHT

Division of
Emhart Mfg. Co.
510 Windsor Street
HARTFORD 5, CONN.

HARTFORD-EMPIRE CO.

Division of
Emhart Mfg. Co.
HARTFORD 2, CONN.

THE V & O PRESS CO.

Division of
Emhart Mfg. Co.
400 Union Turnpike
HUDSON, NEW YORK

STANDARD-KNAPP

Division of
Emhart Mfg. Co.
PORTLAND, CONN.

GLASS

- | | |
|---|---|
| <input type="checkbox"/> Batch Chargers | <input type="checkbox"/> Forming Machines |
| <input type="checkbox"/> Feeders | <input type="checkbox"/> Lehr Loaders |
| <input type="checkbox"/> Lehrs | <input type="checkbox"/> Unit Melters |

PACKAGING MACHINES

- | | |
|---|---|
| <input type="checkbox"/> Unloaders | <input type="checkbox"/> Packers |
| <input type="checkbox"/> Rinsers | <input type="checkbox"/> Labelers |
| <input type="checkbox"/> Cartoners | <input type="checkbox"/> Case Cleaners |
| <input type="checkbox"/> Gluers & Sealers | <input type="checkbox"/> Palletizers & De-palletizers |

METAL WORKING

- Henry & Wright Dieing Machines
- Henry & Wright "Press Load Calculations"
- Henry & Wright Case Histories
- V & O Inclinable Presses
- V & O Notching Presses
- V & O Roll and Dial Feeds
- V & O Feed-O-Matic

NAME _____

TITLE _____

COMPANY _____

ADDRESS _____

CITY & STATE _____

READERS REPORT

What Christmas Means

Dear Sir:

You are most certainly to be congratulated . . . for your suggestion regarding the selection of Christmas cards [BW—Oct. 30 '54, p148]. This particular subject has been a regular fetish with me, and I . . . receive those meaningless cards at Christmas time with downright indignation.

There is every reason to believe your article will do much good, as I'm sure many other readers of BUSINESS WEEK are just as avid readers of Personal Business as I am.

C. P. RITTLING

PRESIDENT
THE RITTLING CORP.
BUFFALO, N. Y.

Bigger Vote = G.O.P.

Dear Sir:

In the article, Combining Numbers and Intuition (BW—Oct. 30 '54, p29), you print the Democratic line: "In 1948, the undecideds went mostly for Harry S. Truman; in 1952, for Eisenhower."

If you accept the Republican hypothesis that "a big vote is a Republican vote," you can better explain the 1948-1952 election results in terms of "turn out." The known facts about these two elections support the hypothesis that in 1948 a majority of the stay-at-homes were Republicans, while in 1952 the Republicans turned out to vote.

At least the facts support this hypothesis as well as the one put forth in your magazine.

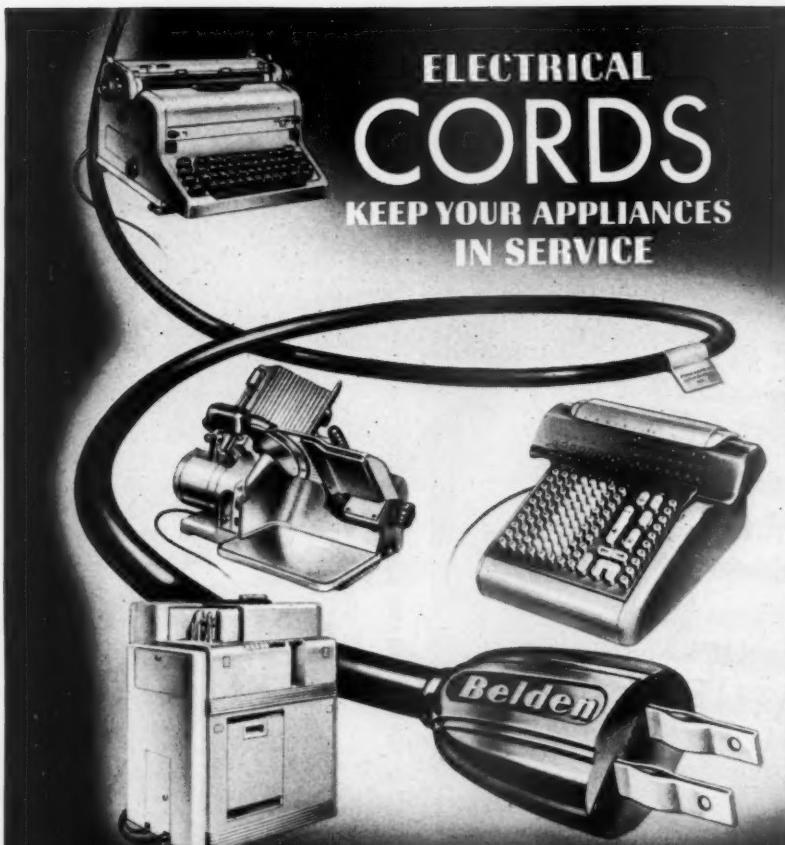
NATHANIEL R. KIDDER
PRESIDENT
YOUNG REPUBLICAN CLUB
CHARLESTON, N. H.

For Safety Belts

Dear Sir:

. . . In the Marketing Briefs section on page 56 of the Oct. 23 issue . . . it was stated: "Safety belts for motorists are a new Hickok product." The proper name is the Hickok-Victor automotive crash belt. Hickok is manufacturing and promoting this . . . and Victor, world's largest gasket manufacturer, is marketing it.

"Because car makers shy away from them as poor psychology" . . . is inserting your philosophy, not ours. We are, in fact, now



The purchase price represents only the starting point in figuring the over-all costs of electrical cords.

Add to that; receiving inspection costs—assembly costs—line inspection costs—and the costs of failures in service. The total is the real cost of cords.

If you think in terms of *actual* over-all profit—it will pay you to do business with Belden.

Save Time, Save Money

Specify Belden

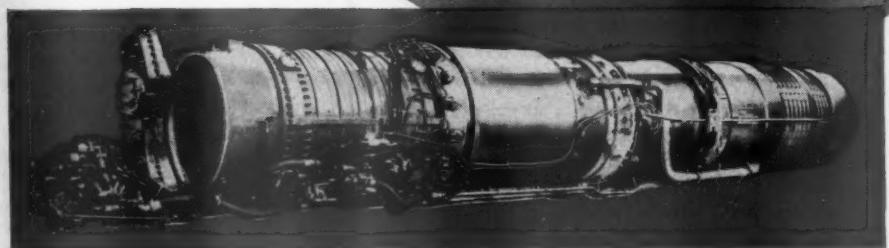
Belden Manufacturing Co.
4689-A W. Van Buren St., Chicago 44, Ill.

MANUFACTURERS WHOSE PRODUCTS SERVE BEST...

Specify **Belden**
WIREDMAKER FOR INDUSTRY

127 New Departures

Join the Navy!



Westinghouse J-40 jet engine with Exhaust Nozzle Actuator Control for the afterburner, where 127 New Departure instrument ball bearings contribute extreme precision and efficiency.

Design by Douglas . . . power by Westinghouse . . . precision by New Departure. That's the Navy's F4D SKYRAY jet—first carrier-based plane to hold the world speed record—753.4 mph.

Among other applications in the SKYRAY, there are 127 New Departure precision instrument ball bearings in its Westinghouse Exhaust Nozzle Actuator Control. This control maintains proper engine temperatures, and demands the utmost in bearing accuracy and efficiency. New Departures meet these demands.

Throughout defense and industry, you'll find New Departures making good products even better. Learn how these fine ball bearings can help your design . . . talk with your New Departure engineer today!



NEW DEPARTURE
BALL BEARINGS

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT
Plants also in Meriden, Connecticut, and Sandusky, Ohio.
In Canada: McKinnon Industries, Ltd., St. Catharines, Ontario.

There's a new idea for you in this picture



This is new FLOW RACK! It's an amazingly versatile materials handling device. Manufacturers find it a production aid . . . wholesalers find it excellent for systematic order picking.

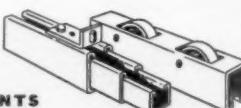
This picture shows it used for small-parts storage . . . making all items easy to select from fewer aisles. It provides constant, visual inventory control.

Costing as little as \$2.25 per hatch-foot, including rack, track and guard rail, Rapistan FLOW RACK is the *first* unitized, gravity flow shelving available . . . and Rapistan is turning it out by the mile on a modern mass production basis, cutting its cost to little more than "dead" storage.

It saves space, places parts in process right next to production lines, eliminates traffic jams. Whether your live-storage problems involve FIFO (first-in-first-out), inventory control, or just plain ease of handling, you should check conveyorized FLOW RACK advantages.

Let us send you—

A FREE SAMPLE OF
FLOW RACK COMPONENTS



Talk it over with your production men, and determine how you can use FLOW RACK. Just send your name to the address below.

The RAPIDS-STANDARD CO., Inc.
185 Rapistan Bldg., Grand Rapids 2, Mich.

Rapistan
FLOW RACK

negotiating with leading automotive producers.

. . . Although our seat belts are in a kit which can be self installed, we estimate that . . . the greatest percentage will be installed by automotive service personnel. . . .

Over three years of laboratory and automotive crash research [which] we sponsored at Cornell Aeronautical Laboratories in Buffalo, and actual accident research in the field by the Crash Injury Research Div. of Cornell Medical College, indicate that the principle of installation to the floor is insecure and in some cases actually dangerous. The Hickok-Victor automotive belt, along with the seat, is held in place by a supporting bar, anchored through the floor to the frame by steel cables. . . . The retail price will be \$24.95 for a kit of two seat belts and a complete bar and assembly for front or back seats. . . .

RAY HICKOK

PRESIDENT
HICKOK MFG. CO.
ROCHESTER, N. Y.

The Little Gods

Dear Sir:

What an attention-stabbing page—Technology Expects to Deliver These Things . . . [BW—Oct. 23 '54, p28].

A deep genuflection of those little gods, the scientists. May we hope that we *have* a world in which to use the "things"? O Utopia; O Summum Bonum! The superman is a product of education, learning, material things, push-button living. The spiritual will be ignored as usual. The physical and mental will be carefully doted upon—but will we have stronger men, better men, men of high goals of ethics and religion?

As spirituality is lost, man makes up for it with more gadgets and faster whirl. . . . A quiet spot for fishing or meditation is not necessary for a tired businessman—all he needs is more aspirin, doctor's care, and a new gadget to relieve him of more than moving an exercised finger.

Maybe technology is our friend. And again, maybe not so much as we like to think. But to "discover how photosynthesis works" should be easy, because science has insisted for years that mindless, impersonal "Nature" . . . doped it out, while scientists have the added blessing of mind. . . . Aren't we all getting top-heavy with materialism and ease? A rather long journey

automobile
belts are
installed,
greatest
by au-
...
laboratory
research
Cornell
in Buf-
research
Injury
Medical
principle
is inse-
actually
ector au-
the seat, is
ing bar,
er to the
... The
5 for a
a com-
or front

Hickok

ng page
Deliver
Oct. 23

f those
May we
world in
"? O
! The
educa-
things,
spiritual

The
be care-
we have
men of
religion?
makes
sets and
pot for
necess-
an—all
doctor's
relieve
an ex-

friend.
uch as
discover
should
has in-
ness, im-
opped it
added
t we all
materialism
journey

20, 1954



**HANDS TIED
BY
TRADITION?**

Make use of the Unique Advantages of TONNAGE OZONE in your Oxidations

You may have been limited in the past to traditional solutions of your oxidation problems... but now you are free to consider the value of this outstanding new approach—Welsbach Tonnage Ozone.

Ozone has always been regarded as a powerful oxidizing agent but there were problems—availability and dependability. Now those problems have been answered—with low-cost Tonnage Ozone, produced where it is used... by dependable Welsbach Ozonators.

Just consider these unique advantages—advantages which only Welsbach Ozone can offer!

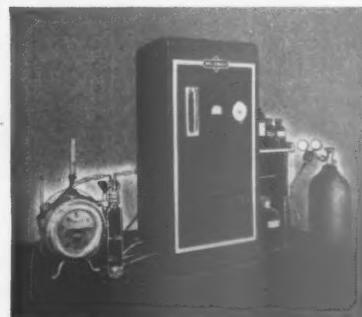
1. No procurement problems. No freight, storage or materials handling expense. Welsbach Ozone is generated where it is used.
2. Fully automatic for continuous processing—maintenance costs are negligible. And since the only raw materials needed are electricity and air or oxygen, operating costs are constant and predictable.
3. Inorganic reaction with ozone is quantitative and instantaneous. And, since only oxygen is added, no post-oxidative cleanup is needed.

4. Ozone cleavage of unsaturated organic compounds is very specific, resulting in higher yields of purer products at a lower cost.

5. Ozone can act as a catalyst in oxygen or air oxidations without requiring high temperatures and pressures.

TRY OZONE IN YOUR LABORATORY

The Welsbach T-23 Laboratory Ozonator is designed specifically as a precision laboratory instrument capable of constant and reproducible operation, positively safe to use. It effects substantial savings in research time through earlier completion of research projects at a lower cost. Write today for descriptive folder on the Model T-23 and, if you wish, indicate the nature of your problem. The Welsbach Corporation, Ozone Processes Division, 1500 Walnut Street, Philadelphia 2, Pa.



Welsbach Model T-23 Laboratory Ozonator—Gives constant, reproducible operation with no ozone leaks, no electrical hazards and substantial savings in research time and money. You'll appreciate its professional refinements.

WELSBACK
ZONE IS TONNAGE OZONE
LOW COST • DEPENDABLE

This suburban family proves . . .

If you've got it . . . a truck brought it!



"We'd live in a polka-dot house—if you dotted all the items brought by truck," says John R. Schreiber, Skokie, Ill.

John R. Schreiber, an Illinois cabinet contractor with plenty of energy and vision, tells our story very well. Substitute your community for Skokie, and you get a good picture of what trucks mean to millions in America's growing suburban areas.

• "We're one of the families who joined the great exodus from the cities to enjoy the comforts of suburbia, right after World War II. Since the day that we first arrived in Skokie, I've been tremendously impressed with the way we and our community depend on trucks for better living. Everything in our house—from the pictures on the walls to the lawn mower, from the new stove and re-

frigerator that were our first purchase to the play gym that keeps our kids in the yard—got here by truck.

"I notice that we get as good a choice of fresh merchandise and late styles in our local stores as we did in Chicago. Local merchants tell me this is possible because they get overnight truck service for even small orders, or same-day service. They—and we—literally live by truck."



American Trucking Industry
American Trucking Associations, Washington 6, D.C.

awaits all; should we take a minute to consider that?

L. VICTOR CLEVELAND
NEW ENGLAND COLLEGE
HENNIKER, N. H.

Background on Pressure

Dear Sir:

Your article, For Cheaper Steam Power [BW—Sep. 18'54, p41] . . . is very timely. . . . I also believe that you have explained in understandable language what is known as critical pressure of steam.

It appears to me, however, that a casual reader may get the impression that steam at or above the critical "barrier" is something very new. It is mentioned in the paragraph under "The Barrier" that a great deal has long been known about steam at super-critical pressure, and much has been learned from experiments conducted by Babcock & Wilcox in 1930.

All this is true, but should it not be mentioned that super-pressure boilers were first built and operated in 1896?

Dr. Gustaf De Laval, the Swedish scientist and engineer, started his thinking of a high pressure boiler as early as 1889. His idea was finally developed in 1896 and a number of small boilers were actually built and placed in operation in 1897. Some of these boilers were operated at pressures up to 3500 psi.

During the Industrial Exposition in Stockholm in 1897, part of the electrical power supplied for the Exhibition was furnished by six small turbines, each with individual boilers operating some at 1600 psi, and some at 3200 psi. Due to the limitations of material available at that time, further development terminated.

As far as is known, to Dr. De Laval goes the honor of being the first engineer to conceive, build and operate boilers above the critical pressure of 3200 psi. Admitted that his units were small, 50 hp. and 100 hp., but the principle involved was established. . . .

C. R. WALLER
DIRECTOR FOR ENGINEERING
DE LAVAL STEAM TURBINE CO.
TRENTON, N. J.

Rice Price

Dear Sir:

[Re] your article on the current rice surplus in Southeast Asia and its political implications [BW—Nov. 6'54, p152] . . . if Rangoon is now asking \$134 a ton for rice,

a minute
EVELAND

essure

er Steam
[41] . . .
o believe
n under-
is known
m.
ever, that
the im-
or above
omething
ed in the
"Barrier"
ong been
er-critical
as been
ents con-
Wilcox in

should it
per-pres-
built and

the Swed-
, started
pressure
His idea
896 and
ers were
in opera-
use boilers
es up to

xposition
rt of the
for the
by six
ndividual
1600 psi,
ue to the
available
elopment

Dr. De
being the
build and
e critical
Admitted
. 50 hp.
principle

WALLER
G
CO.

current
Asia and
[BW—
Rangoon
for rice.



Your Inland Steel service-
man has his ear tuned to
your needs. His whole re-
sponsibility is to stay on top of

your steel orders, doing every-

thing possible to give you the
accurate and prompt service you

have come to expect from Inland.

He is the link between manufacturing

and sales and his job is to keep posted

on steel production progress. Each Inland

customer has his own particular serviceman.

In effect, he's your inside man at Inland.



INLAND STEEL COMPANY 38 South Dearborn Street • Chicago 3, Illinois

Sales Offices: Chicago • Milwaukee • St. Paul • Davenport • St. Louis • Kansas City
Indianapolis • Detroit • New York

Principal Products: Sheets • Strip • Plates • Structural Shapes • Bars • Tin Mill Products
Rails and Track Accessories • Coal Chemicals

Costs less than a typewriter... saves more than it costs!

Hand folding is no longer a necessary nuisance in any office. Now there are small, electric Pitney-Bowes folding machines that make quick and efficient work of folding bulletins, form letters, announcements, other mail enclosures. Your highly paid office workers are freed from tiresome hand-folding. You save plenty.

The little FH model, for instance, which costs less than a typewriter, folds five to ten times as fast as a person can fold by hand—can double-fold as many as 5,000 letter-sized sheets an hour. It makes eight different folds, handles sheets as large as 8½ by 14 inches—



Move indicator knobs to widths wanted
... And it's ready to go!

PITNEY-BOWES Folding Machines



Made by Pitney-Bowes, Inc....originators
of the postage meter... 93 branch offices,
with service in 259 cities in U. S. and Canada.



*The FH costs less than
a standard typewriter*

even when stapled together.

Electrically driven, with semi-automatic feed, the FH can be used by anybody. It takes but a few seconds to set up for a job...easy as tuning your TV! Requires little space. And it's so light it can be carried anywhere it's needed.

Ask the nearest Pitney-Bowes office for a demonstration, or send coupon for a free illustrated booklet.

The larger, fully automatic FM will fold up to 19,000 sheets an hour—wonderful time and work saver.



PITNEY-BOWES, INC.
1458 Pacific St., Stamford, Conn.

Send free booklet on
Folding Machine to:

Name _____

Firm _____

Address _____



and wheat is selling for \$60 a ton isn't that a great deal more than the prewar wheat to rice ratio of 4 to 5? Also, the U. S. domestic support price for rice is \$4.92 a hundredweight, not a pound.

S. FOSTER

NEW YORK, N. Y.

BUSINESS WEEK meant to say: "So rice should be selling for far less than Rangoon's asking price of \$134 a ton." U. S. Dept. of Agriculture experts believe a price that would move Burma's surplus rice would be \$90 to \$100, still higher than the prewar ratio.

A State of Mind?

Dear Sir:

I have read the letters critical of your editorial position on Sen. McCarthy [BW—Oct. 30'54, p48]. It is quite evident that your correspondents have little confidence in the good sense of the American people and in our traditional institutions. However, it serves no good purpose to argue with a state of mind.

If all that stands between our way of life and conquest by the Communists is the ineffective, superficial and totalitarian type of demagoguery we have come to expect from the Wisconsin senator, then I say let's give the country back to the Indians.

IRVING B. ALTMAN
VICE-PRESIDENT & CASHIER
THE MERCHANTS BANK OF
NEW YORK
NEW YORK, N. Y.

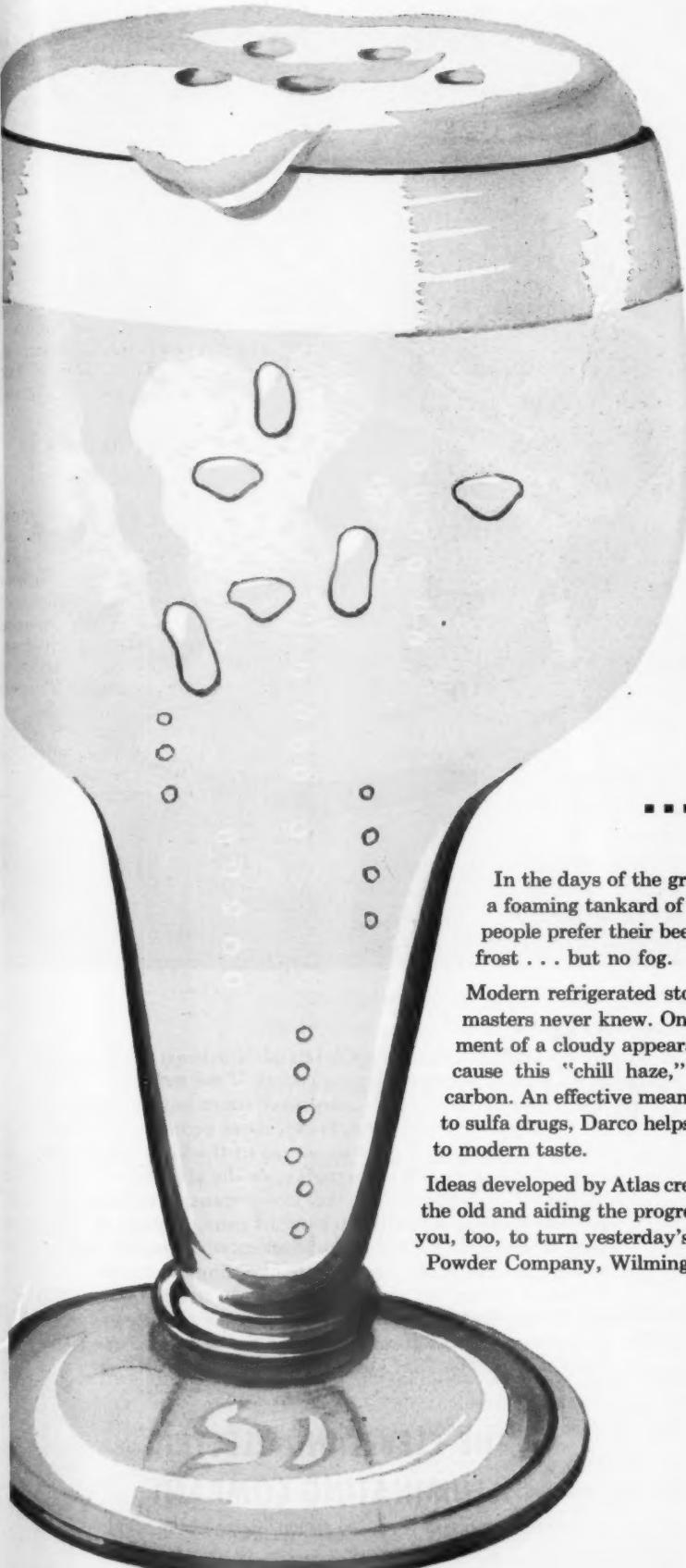
No Escape?

Dear Sir:

After reading your story, The Big Puzzle: Who Gets How Much of What? [BW—Oct. 16'54, p66], . . . I have been debating with myself the value of the Army's gift, or extra "compensation," to its advanced enlisted men—private living rooms, private dining rooms equipped with waitresses and china dishes, etc.

To say the least, I am disappointed to find that I will not escape this atmosphere in the business world.

H. EUGENE CONNELLY (PFC)
HEADQUARTERS CO.
RYUKYU COMMAND
8104TH ARMY UNIT
A.P.O. 331 C/O POSTMASTER
SAN FRANCISCO, CALIF.



**Shakespeare
drank it hot
...you like it cold**

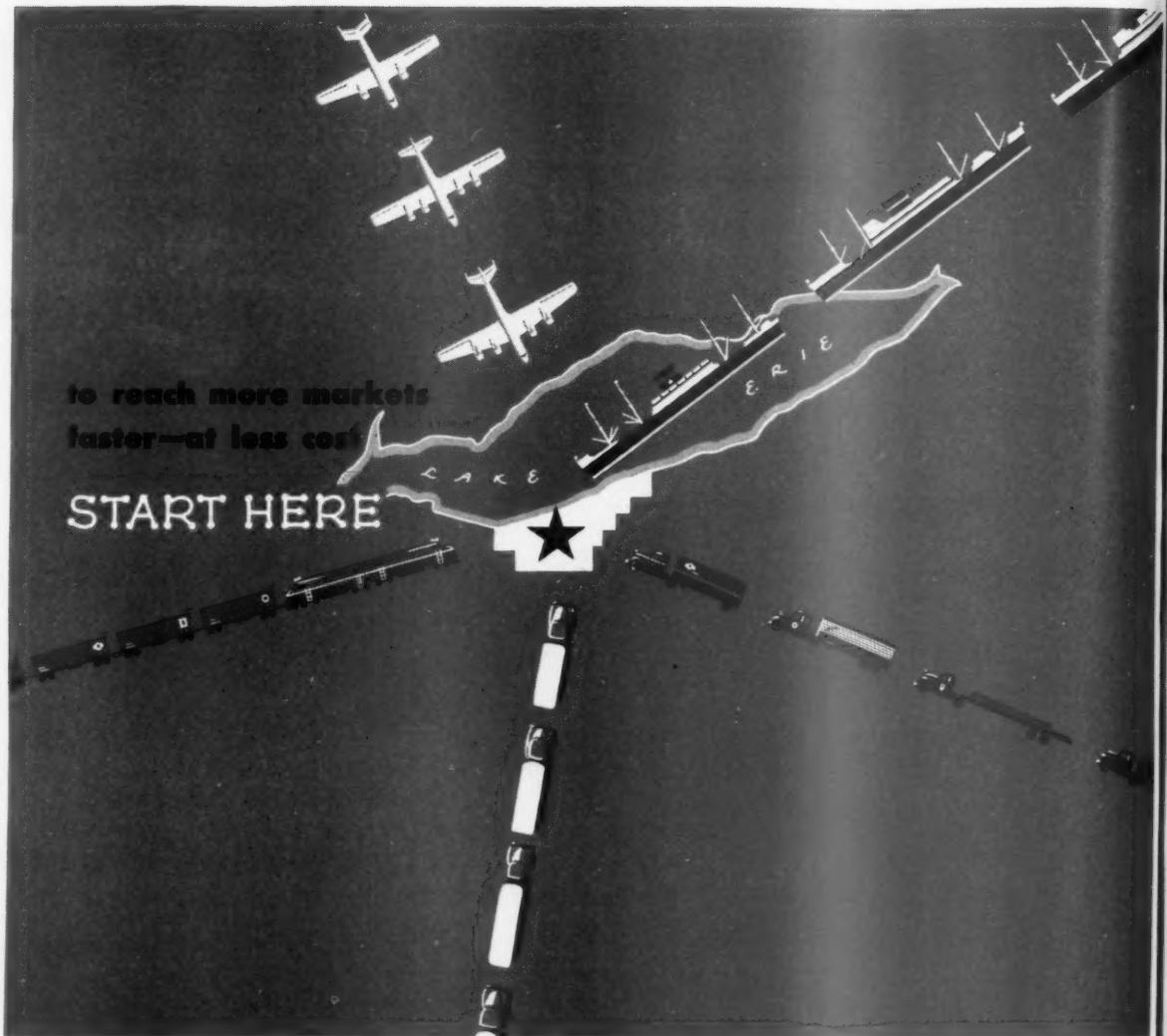
In the days of the great bard, the favorite thirst quencher was a foaming tankard of beer, warmed by a glowing poker. Today, people prefer their beer ice-cold . . . and crystal clear. Foam and frost . . . but no fog.

Modern refrigerated storage causes problems that old-time brewmasters never knew. One of the most troublesome is the development of a cloudy appearance. To take out those few proteins that cause this "chill haze," brewmasters call on Darco® activated carbon. An effective means of purifying scores of things from sugar to sulfa drugs, Darco helps in brewing clear, light beer that appeals to modern taste.

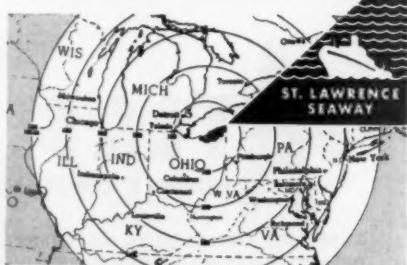
Ideas developed by Atlas creative chemistry are constantly improving the old and aiding the progress of the new. Perhaps we can work with you, too, to turn yesterday's problems into tomorrow's profits. Atlas Powder Company, Wilmington 99, Delaware.



SORBITOL, EMULSIFIERS, DETERGENTS
POLYESTER RESINS, PAINTS, EXPLOSIVES
ACTIVATED CARBONS, LAUNDRY COVERS



WORLD GATEWAY



TO THE BEST LOCATION IN THE NATION



WHEN you locate in Cleveland-Northeast Ohio you are at the center of three-quarters of the nation's industrial might . . . can reach more buyers, more suppliers by shorter, faster, more economical hauls.

Via seven major railroads or scores of trucking companies using the new East-West turnpike, or the already planned North-South turnpike, lower transportation cost permits more competitive pricing of your product. If your future calls for European markets or materials, you will be able to profit from single handling, nonstop shipment via the St. Lawrence Seaway. In strictest confidence, Mr. R. L. DeChant, Manager, Development Department, will provide detailed information on all the economies you can enjoy in The Best Location in the Nation.

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

77 PUBLIC SQUARE • CHerry 1-4200 • CLEVELAND 1, OHIO

BUSINESS OUTLOOK

BUSINESS WEEK

NOV. 20, 1954



A BUSINESS WEEK

SERVICE

Industry's inventory turnaround now has reached the obvious stage.

No longer are manufacturers drawing down. They may not be adding much, but at least they are buying their current needs.

This, as Business Week began telling you months ago, had to happen.

You see the inventory turn very clearly in steel. You recall how steel went from scarcity and premium deals into a tailspin. Fortunately, the high-priced stuff was worked off without too much sacrifice.

Now, with an optimistic auto industry pushing output, steel buyers once again are falling over one another in the rush to place orders.

Less talk now is heard about steel capacity being far in excess of foreseeable needs. Output already was nudging 80% as this week started.

By midweek, at least three companies had rekindled blast furnaces.

There may be some froth on this wave—a catch-up that doesn't represent basic demand. But that's the way a pendulum swings.

—•—

Industrial production, over-all, has been making better progress than the casual observer may have realized.

The Federal Reserve Board's preliminary figure for October nudged up to 125. It had been 124 in September, 123 in August. (The figures, in all cases, are corrected to iron out seasonal swings.)

And remember: The index advanced even with autos dragging and steel recovering only slowly from its earlier slump.

Durable goods manufacturers will make their first long stride in November in recovering lost ground. They still have quite a way to go, however, before they get back to their 1953 highs.

The Federal Reserve's top index number for this type of manufacturing was 157 last year. From there it fell to 134 this summer.

By October, it had pulled up to 138. Autos and steel will give this category a considerable nudge when November figures are compiled.

Manufacturers of major household items (furniture, floor coverings, large appliances, TV and radio), though breaking no records, have been doing pretty well the last three months. Output, averaging nearly one-third higher than in 1947-49, topped a year ago in September and October.

—•—

Construction's boom gets more spectacular month by month. And the predictions for 1955 get rosier and rosier.

The 106,000 new dwelling units started last month surpassed even October of 1950, the record-setting year for housing. Thus 1954 is sure of about 1,150,000 starts, second only to 1950.

This, considering the lag between start and completion, also assures a good carryover of home building into the new year.

Dollar totals for all construction this year (nonresidential as well as residential) have been revised to \$37-billion.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

NOV. 20, 1954

That's a boost of about \$1-billion. More to the point, however, are Commerce-Labor Dept. projections for 1955. These envisage a \$39½-billion construction year—topping even 1954 by nearly 7%.

The government forecasters see residential contributing \$15-billion to the total for a gain of about 13% over 1954.

Private expenditures on structures other than residences are put at \$12.4-billion.

Contract awards for new construction bolster rosy predictions for next year. F. & W. Dodge Corp. reports October value of all projects in the 37 states east of the Rockies the third highest on record (exceeded only by two months when huge atomic energy contracts were placed). October by the way, was the highest ever for residential in the Dodge figures—10% above September and 34% better than a year ago.

The surge of home building has the Commerce-Labor experts predicting 1.3-million starts for next year. This does not seem at all improbable in the light of the seasonally adjusted annual rate in recent months.

—•—
By this time next year, you are almost sure to hear some serious voices raised on the subject of overbuilding.

Homes are being built, as everyone knows, more rapidly than new families are being formed: The question is this: How long will low down payments and long amortization keep buying cheaper than renting?

This isn't as academic as it once was. The rent curve hasn't been rising **nearly as fast this year as last.** In fact, every now and then you hear of an area in which it isn't rising at all.

Leveling off in rents (one of the few guides is provided by rents reported in the cost-of-living index) actually would mean lower-cost housing; homes would soon rent at concession from the quoted figures.

Lower rentals could quickly change the sales picture for houses—old houses first, but new ones not long after.

—•—
Paint, like numerous building materials, has benefited much less than you might expect from the construction boom—up to now.

Industry sales ran 3½% behind a year ago through Sept. 30, the National Paint, Varnish & Lacquer Assn. reports. The dollar total this year for the nine months was \$1.1-billion against \$1.4-billion last year.

However, the association expects the fourth quarter to close the gap. This apparently is based on the steadily swelling construction gains.

—•—
Cement probably won't break any records for 1954 due to the strike early in the year. But shipments in recent months have been the highest ever, partly to make up for the strike's inroads.

And the bright outlook for public works, particularly highways, seems to assure high activity for a good while.

That helps account for announcements such as Lone Star Cement's this week of a further \$14.2-million for expansion and improvement.

Contents copyrighted under the general copyright on the Nov. 20, 1954, issue—Business Week, 330 W. 42nd St., New York, N.Y.

STAINLESS STEEL FOR TRANSPORTATION

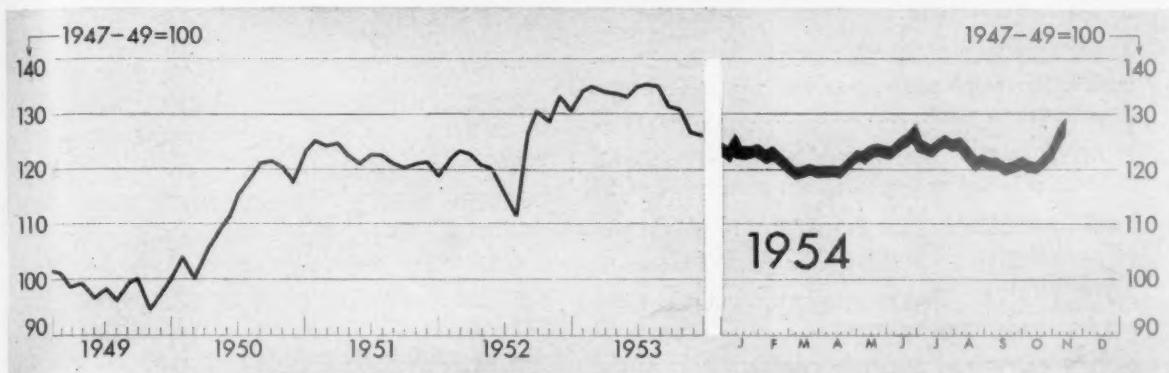


McLouth STAINLESS Steel

High quality stainless sheet
and strip steel . . . for the product
you make today and the
product you plan for tomorrow.

McLOUTH STEEL CORPORATION
DETROIT, MICHIGAN
Manufacturers of Stainless and Carbon Steels

FIGURES OF THE WEEK



Business Week Index (above)

Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
*129.1	+126.8	121.5	127.5	91.6

PRODUCTION

Steel ingot production (thousands of tons)	1,882	+1,874	1,769	2,044	1,281
Production of automobiles and trucks	140,419	+116,179	59,511	115,748	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$51,332	\$52,265	\$42,058	\$43,808	\$17,083
Electric power output (millions of kilowatt-hours)	9,197	9,357	9,117	8,457	4,238
Crude oil and condensate production (daily av., thousands of bbls.)	6,220	6,191	6,196	6,219	4,751
Bituminous coal production (daily average, thousands of tons)	1,404	+1,508	1,381	1,474	1,745
Paperboard production (tons)	258,396	259,692	252,442	256,655	167,269

TRADE

Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)	69	72	69	73	82
Carloadings: raw materials (daily av., thousands of cars)	47	51	48	51	53
Department store sales (change from same week of preceding year)	+4%	+4%	-2%	+3%	+30%
Business failures (Dun and Bradstreet, number)	227	204	152	155	22

PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	411.5	410.5	402.6	396.0	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100)	89.5	89.4	88.5	83.7	+173.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100)	93.7	93.2	92.2	93.3	+175.4
Print cloth (spot and nearby, yd.)	18.7¢	18.7¢	19.0¢	19.0¢	17.5¢
Finished steel, index (U. S. BLS, 1947-49 = 100)	144.7	144.7	144.7	141.4	+176.4
Scrap steel composite (Iron Age, ton)	\$33.83	\$34.00	\$33.00	\$35.33	\$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.)	30.000¢	30.000¢	30.000¢	29.988¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	\$2.42	\$2.43	\$2.42	\$2.34	\$1.97
Cotton, daily price (middling, ten designated markets, lb.)	33.80¢	33.89¢	34.28¢	32.69¢	30.56¢
Wool tops (Boston, lb.)	\$2.18	\$2.23	\$2.23	\$2.12	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's)	266.3	261.8	253.3	193.6	135.7
Medium grade corporate bond yield (Baa issues, Moody's)	3.45%	3.45%	3.46%	3.75%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	1½-1¾%	1½-1¾%	1½-1¾%	2¾%	2-1%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	55,573	+55,472	54,672	53,675	+145,820
Total loans and investments, reporting member banks	84,424	84,932	84,722	79,759	+171,916
Commercial and agricultural loans, reporting member banks	21,133	21,104	21,195	3,340	+19,299
U. S. gov't guaranteed obligations held, reporting member banks	37,377	37,358	37,364	32,448	+149,879
Total federal reserve credit outstanding	25,581	25,495	25,267	26,111	23,883

MONTHLY FIGURES OF THE WEEK

Latest Month	Preceding Month	Year Ago	1946 Average
--------------	-----------------	----------	--------------

Housing starts (in thousands)	October	106.0	114.0	90.1	55.9
Bank debits (in millions)	October	\$152,321	\$149,899	\$149,606	+\$85,577
Retail sales (seasonally adjusted, in millions)	September	\$14,214	\$14,150	\$13,982	\$8,541

*Preliminary, week ended Nov. 13, 1954.
†Revised.

++ Estimate.

■ Date for "Latest Week" on each series on request.

in BUSINESS this WEEK . . .

GENERAL BUSINESS:

A WORLD WITHOUT THE COLD WAR. Everywhere, the emphasis seems shifting to economic growth, less tension..... p. 25

READY TO GO. States are backing President's \$50-billion highway improvement program... p. 26

YOUNG HEADS BACK TO AAR. N. Y. Central plans to stay in rail group, C & O will join.... p. 27

AUTO PRICES. They're mostly up, but a few are cut for competitive reasons..... p. 27

PROXY BATTLE IN TOLEDO: ONE WAY TO BUILD AN EMPIRE. Edward Lamb proves value of votes

with his latest acquisition..... p. 28

BUSY CHRISTMAS FOR RETAILERS. They expect to do better this year, as hardgoods climb from their slump p. 30

DEALERS STEW IN TAILORED KITCHENS. The appliance industry is cooking up a new look for kitchen equipment p. 31

LINGAN A. WARREN GOES TO BAT FOR RETAILERS. Head of Safeway Stores tells manufacturers why he dislikes their trade practices..... p. 32

Business Briefs p. 34

BUSINESS ABROAD:

LATIN AMERICA: THE MARKET GROWS BUT SO DOES THE COMPETITION. What part will the U. S. play in its growth?..... p. 142

LOST WEEKENDS WORRY FRANCE. Premier Mendes-France begins a campaign against alcoholism. p. 154

FINANCE:

CORPORATE BOND BUYERS BALK. Investors are shying away from issues with low yields..... p. 128

AVERY OPENS UP IN WARD FIGHT. Usually tight-lipped chairman welcomes newsmen at an exclusive interview..... p. 134

GOVERNMENT:

AT LAST, A MACHINE RESERVE. Long-deferred plan to buy strategic machine tools for reserve has been approved..... p. 186

EXEC STOCKPILE. ODM gives refresher courses to men who had wartime jobs in Washington.... p. 187

INDUSTRIES:

AN OLD ART WHIPS UP A BIG BUSINESS. More and more industrial uses are being found for silk screen printing p. 82

INTRODUCING WORKERS TO PRODUCT. Rose Marie Reid workers have a fashion show of bathing suits they've made..... p. 92

LABOR:

BEHIND UAW's GOALS FOR 1955. Union leaders met in Detroit last

	Page
Business Outlook	17
Washington Outlook	37
International Outlook	159
Personal Business	179
 The Trend	 196
Figures of the Week.....	21
Charts of the Week.....	182
Local Business	74
Readers Report	8

week to map final bargaining plans p. 166

"THE SLIDE-RULE UNIONIST." Nat Weinberg, UAW's research director, uses statistics in the fight for a guaranteed annual wage..... p. 170

STALEMATE OVER MINERS' PAY. Low production of coal is the big argument against new wage demands p. 172

MANAGEMENT:

SPLITTING TO SERVE TWO MARKETS. York Corp. wants a bigger share of industrial air conditioning business p. 41

RISE OF AN INDUSTRIAL GIANT. Paul Litchfield's book, *Industrial Voyage*, tells his part in the growth of Goodyear..... p. 48

THE MANAGEMENT PATTERN: A Business Memoir That Says Something p. 52

MARKETING:

CHRYSLER'S RECIPE: FIVE NEW LINES AND HAPPY DEALERS. With new models, a new goal: a full fifth of the market..... p. 114

WEIGH IT RIGHT. Philadelphia drive on short weights boosts fines to discourage carelessness..... p. 122

DAIRIES TRY DISCOUNTS. Harassed dairies look for ways to recapture home delivery market. p. 128

THE MARKETS:

RAILS JOIN THE PARTY. They've shown the most striking percentage gains in the bull market..... p. 162

NAMES & FACES:

THE MAN ON THE EMPIRE STATE. For Col. Henry Crown, the skyscraper is the icing on his business cake p. 190

PRODUCTION:

HOW TO TRIP PRODUCTION COSTS. Companies are looking for ways to save on materials, processes and labor..... p. 54

SYNTHETIC MICA ON BIG SCALE. New subsidiary of Mycalex Corp. will provide competition for India. p. 59

MORE NICKEL. Freeport Sulphur Co. and GSA get together to boost production p. 62

LINCOLN TUNNEL. The third tube, costing \$100-million, will raise capacity by 50%..... p. 66

NEW PRODUCTS..... p. 70

REGIONS:

STARTING A NEW LIFE ON AN ISLAND PARADISE. Businessmen find relief from harried cities on offbeat West Indies islands..... p. 101

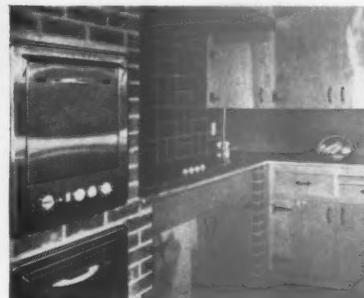
LOOK WHAT RUBBER PRODUCTS MADE WITH NEOPRENE ARE DOING



8 YEARS AT HARD LABOR and this neoprene conveyor belt is still going strong at a West Virginia colliery. Thousands of tons of jagged coal haven't been able to knock it out. Rugged neoprene withstands abrasion without chipping or cracking...is flame-resistant. It refuses to soften, crack or lose its flexibility despite exposure to grease and heat.



COMFORTABLE MOCCASINS are made of soft suede fabric anchored in flexible neoprene cement. This sturdy cement withstands abrasion, oil, scuffing and detergents... gives the stick that *stays*.



NEW LOOK IN KITCHENS features eye-level oven and counter cooking tops for convenience and easy cleaning. Neoprene gaskets prevent accumulation of dirt. Neoprene withstands heat, oil, grease, and cooking fats as no ordinary resilient material could.

How neoprene can help you sell and save

When you use neoprene in your product, you have a persuasive sales story based on performance. Your story starts with the unusual properties of neoprene—goes on to its dependability where other resilient materials fail. Whether you're selling rubber goods made of neoprene or a product with a neoprene component part, you have a competitive selling edge of extra customer benefits.

And in your plant, you can take the edge off

operating costs with products of neoprene. Their longer service life brings you the economy of less frequent maintenance, fewer replacements.

We've prepared a special booklet that documents, with actual dollars-and-cents examples, how the use of neoprene, Du Pont's chemical rubber, results in important savings. It's a report we're sure you'll be interested in... a report every industrial executive should have. Clip the coupon below for your copy.

MAIL THIS COUPON FOR FREE BOOKLET

E. I. du Pont de Nemours & Co. (Inc.)
Rubber Chemicals Division BW-11
Wilmington 98, Delaware



Please send me your free booklet—"A Report on Neoprene... for the Industrial Executive."

Name _____ Position _____

Firm _____

Address _____

City _____ State _____

NEOPRENE

The rubber made by Du Pont since 1932



BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

p. 28
expect
from
p. 30
The
k for
p. 31
TAIL-
urers
p. 32
p. 34

adelphia
sts fines
.. p. 122
TS. Ho-
ers to re-
t. p. 126

They've
percentage
.. p. 162

STATE
the sky-
business
.. p. 190

JECTION
ing for
processes
.. p. 54

SCALE
orp. will
.. p. 59

shur Co.
ost pro-
.. p. 62

rd tube,
rise co-
.. p. 66
.. p. 70

ON AN
essmen
on off-
p. 101

20, 1954



WARNER GEAR DIVISION OF

BORG-WARNER CORP., Muncie, Indiana — one of the top organizations in its field in America — is another important Texaco user. Here's what Warner says about Texaco performance:

"Results have been far beyond our expectations. With Texaco Marquenching Oil we are handling greater loads than we ever could with ordinary quenching oils and of greater importance are getting less distortion. We like Texaco Marquenching Oil so much that we are extending its use to our other plants."

BORG-WARNER is just one of the many fine corporations which have gained benefits through the use of superior Texaco Products and the services of skilled Texaco Lubrication Engineers. Texaco can help achieve these same goals in every major field of industry and transporta-

tion. One agreement of sale supplies all your plants wherever located. For further information, call the nearest of the more than 2,000 Texaco Distributing Plants in all 48 States, or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

TEXACO

INDUSTRIAL LUBRICANTS



A World Without the Cold War

● That's what the prospect looks like now as East and West settle down to a balance kept stable by the two-way threat of the H-bomb.

● There'll still be tensions, maybe local fighting.
● But growing Western strength and the serious Red farm crisis are factors for peace—perhaps leading to a long era of Western economic expansion.

Nearly a decade has passed since World War II ended. It has been a decade dominated by an East-West struggle so bitter that until recently it looked as if it would go on until one side or the other backed down or until the world became engulfed in a final, devastating holocaust.

Today, as the decade nears its close, this struggle has eased off—eased off enough so that it's safe to predict that East and West are settling down, on pretty much a status quo basis, to live together in the same world for some time ahead. They won't live together without constant friction, serious tensions, and perhaps localized fighting. But there won't be the kind of war threat we knew all through the cold war period. And both sides will be tending more to their own knitting.

Everyone still has to live with the two-world geography produced by World War II and its aftermath. As far as Europe is concerned, there may be some increase in East-West trade and cultural relations. In a few years you may see Soviet commercial airliners landing in Paris or London, and French and British planes carrying passengers to Moscow.

But the Iron Curtain isn't likely to be erased from our maps in the foreseeable future. And certainly this form of "co-existence," to use the Russian term, or "modus vivendi," to use Pres. Eisenhower's pet phrase, won't close the ideological gap between the U.S. and Russia.

I. World Balance

This post-war world won't be the kind of world Americans expected to

live in when they came out of the war victoriously in 1945. Nor is it the kind of world they would choose to live in today. The stabilization of East-West boundaries along present lines leaves the Soviet Union with its ill-gotten conquests in Eastern Europe. It leaves Communism firmly entrenched in mainland China, North Korea, and at least the northern part of Indo-China. It leaves the Soviet Union infinitely stronger than it has ever been in military power and in heavy industry.

These three changes add up to an historic shift in the world balance of power—one that can only be altered by an H-Bomb war or by slow erosion within the Communist world.

● Red Setbacks—If this isn't the kind of world the U.S. would prefer, it's equally true that it isn't the kind the Communists have been shooting for. Stalin planned to control all of Europe and all of Asia, leaving the U.S. completely isolated. He might have achieved his goal if the West had not stood firm in Berlin and Korea and then boosted its military defenses. This gave Western Europe a chance to build military and economic strength; today it is better able to resist Communist pressures of every kind than ever before.

At the same time the post-Stalin regime has had to turn more and more of its attention to domestic affairs—notably the serious agricultural crisis that has resulted from Stalin's exclusive concentration on heavy industry and his policy of forced collectivization in Russian agriculture.

Only in Southeast Asia are there real openings left for the Communists to exploit. And these are being partly plugged by the Southeast Asia Defense

Organization. They could be plugged still further if the U.S. now moves ahead with the proposal for an Asian Marshall Plan (BW—Oct. 16 '54, p25).

● H-Bomb Stability—Meanwhile the H-bomb is acting as a stabilizing force—by inhibiting both sides from trying to upset the present balance through military means. It is possible, of course, that the H-bomb, or the threat of it, will be used by Moscow when the Russians have thermonuclear equality with us. But it seems more likely that for all practical purposes an H-bomb balance has come into being already—with neither side willing to risk total destruction for itself by bringing the weapon into play either in fact or as a diplomatic bludgeon.

II. Growth Era Ahead?

If this is a reasonably accurate picture of the world today then a recent Churchillian forecast may prove to be more than wishful thinking. The British Prime Minister said:

"We might even find ourselves in a few years moving along a broad, smooth causeway of peace and plenty, instead of roaming and peering around on the rim of hell."

Certainly the prospects for economic expansion in the Western world are good. The U.S. economy seems destined for a long period of economic growth, with technological changes almost as sweeping as those of the last half century. Western Europe is back again as a going economic concern, and seems headed for an era of economic expansion based in part on a growing consumer market (BW—Nov. 13 '54, p 140). With the U.S. and European economies going great guns, the underdeveloped countries can count on an increasingly rapid growth.

In fact, we may be heading into a period of world-wide economic expansion, with the U.S. as its main generator, comparable with that which Britain sparked in the second half of the 19th Century.

III. Stabilizing Factors

It isn't the "peaceful co-existence" talk from Moscow (which now includes

Indiana
another
Texaco

xaco
ever
ance
ng Oil

ll your
forma-
2,000
ates, or
42nd

citations from George Washington) that indicates a real change in the East-West picture. Most of that talk is pure propaganda designed to get concessions from the West that Moscow has no thought of granting to us. Nor is there a basic change indicated in Eisenhower's new emphasis on the need for a "modus vivendi," though this reflects a genuine policy goal.

Behind the peace talk from both sides, though, you do find certain concrete policy adjustments that add up to something new. There are two underlying factors that point in the same direction—the accumulation of strength in the West on the one hand, and the agricultural crisis inside the Soviet bloc on the other.

• **Western Conciliation**—On the first count, the West has made two significant policy adjustments that are meant to ease East-West friction:

(1) At the London conference in September the Western powers agreed not to use force to roll back the Iron Curtain.

(2) Eisenhower has decided to put wraps on Chiang Kai-shek so that fighting over the Nationalist-held islands close to Red China's coast won't lead to a war over Formosa, which we are committed to defend under all circumstances.

• **Russian Shifts**—As for Russian policy adjustments, it's pretty clear that Moscow wants to stabilize things along its borders, especially in certain key spots.

In Iran, Moscow hasn't even protested at the restoration of Western influence. Moreover, it is calmly accepting the toughfisted campaign Premier Zahedi is waging against the Communist Party.

In Turkey, the Kremlin has given up its fight to have a hand in controlling access to the Bosphorus Straits.

In Yugoslavia, Malenkov has reversed Stalin's aggressive policy, thus easing the tension that Stalin had created.

The Russians seem to have reconciled themselves even to West German rearmament. True, Moscow this week proposed an all-European conference for Nov. 29 to discuss the problem. But Molotov called it on such short notice that it's obvious he intended only to gather the East European satellites together and produce a declaration against any new German aggression.

• **Red Trump Lost**—The Russians counted on economic depression in the West, originating in the U.S., to be their trump card. They expected depression to produce a political and psychological climate in Western Europe that would make a splitting operation easy.

Instead, Moscow faces today a Western Europe that is determined to ratify the Paris agreements. Back of this de-

termination lies a new economic vigor and confidence—the kind of climate where neutralism doesn't flourish. Anti-American feeling, which the Communists have been so successful in fomenting, is declining, too. So is interest in trade with the East.

• **Farm Crisis**—From the economic angle, the shoe is on the other foot right now. It's the Soviet bloc, rather than the West, that is in economic trouble. In fact, the Communist world faces a serious agricultural crisis from Prague to Peking. It's far from clear how decisively this affects Soviet foreign policy. Still, it's a safe bet that Moscow has no taste for an international crisis over Germany while its agricultural problem remains as acute as it is now.

The whole Soviet bloc faces a food shortage this winter. Disastrous floods in Red China have cut rice and grain output there. Floods in Eastern Europe, plus the reduction of farm acreage produced by excessive industrialization, have drastically cut satellite output.

But it's in Russia itself that the agricultural crisis cuts deepest. For four years now grain output has remained almost stationary.

The shortage of livestock is still acute. Projected gains for 1954 just didn't come off. Moscow is talking officially about importing 200,000 tons of meat next year—that would be about 25% of total world trade in meats.

• **Desperate Gamble**—Right now the Malenkov regime is gambling on the "conquest of virgin land" in Western Siberia, especially Kazakhstan. About 20-million acres went under the plow this year. By 1956 the total is slated to reach 70-million acres.

This whole experiment, which is costly in manpower and capital investment, is a desperate gamble. It's going on in a semi-arid area of Russia. Bad weather over the next few years could nullify the whole venture, leaving the Soviet economy still in a dangerously unbalanced condition.

• **Stalin Legacy**—At the same time, Moscow has on its hands a problem of economic unbalance in Eastern Europe. This has resulted from the fantastic tempo of industrialization, with all the emphasis on heavy industry, which Stalin forced on the satellite area. (This year Eastern Europe's heavy industrial output, on a per capita basis, is only about 10% less than Western Europe's.)

This is what has created the present shortage of food and fuel in Eastern Europe.

• **Danger Sign**—It's too much to say that this economic crisis, centering around agriculture, will threaten the present regime in Moscow or even break its hold on Eastern Europe. But if there are any forces that can produce such changes behind the Iron Curtain, they will come from this direction.

Ready to Go

The states are backing without stint the President's 10-year, \$50-billion highway improvement program.

Pres. Eisenhower's "Grand Plan" to double the rate of highway construction—to build \$100-billion worth in the next 10 years instead of a "normal" \$50-billion—is rapidly losing the status of a dream. Two things happened last week to indicate that the states are ready to back the Grand Plan without stint:

• Seven state governors, comprising a special highway committee of the Governors' Conference, decided to endorse the plan without dotting an "I." Previously, they had agreed to the plan on principle, but had disagreed with the President on various financing details.

• The American Assn. of State Highway Officials, at a convention in Seattle, likewise backed the plan. At an earlier period of discussion on the plan, many governors and highway officials had indicated that they would prefer less federal financing of highways. They wanted the federal government to stop collecting its 2¢-per-gal. tax on gasoline, to let the states get the money and in turn do the roadbuilding. But this point of view has been changing in the past few months; the highway officials and the seven governors last week made the change final.

With these two groups behind the plan, Congress is expected to buy it cheerfully when the President submits it—as he intends to do—in January.

• **Vision**—The Grand Plan (BW-Oct. 9'54, p28) aims at doubling the normal rate of highway construction over the next 10 years. The normal rate would be \$50-billion worth.

The extra \$50-billion envisioned by the plan breaks down into two roughly equal halves. One half would involve rebuilding and improving the 40,000-mile interstate highway system—the country's main trunkline network—to make it capable of handling estimated 1974 traffic. In the past, the federal government has shared the cost of interstate roadbuilding with the states. Under the plan, the federal government would foot the entire rebuilding and improvement bill on the trunkline network, in addition to continuing its regular grants to the states for upkeep and improvement of some 630,000 miles of secondary highways.

The second half of the Grand Plan involves work by the states on local and state highways—roads not in the trunkline or secondary federal-aid net-

works. The states would foot most of the bill for this. The President proposes that both halves of the plan move forward simultaneously.

Last week, Gen. Lucius Clay, chairman of the President's special committee on highways, added a few billion dollars more to the present size of the plan. Clay outlined a modest enlargement of the trunkline construction program—an enlargement involving link highways connecting the trunkline network with principal metropolitan areas. Clay estimated the main improvement job at about \$23-billion, the links at perhaps \$3-billion—a total of \$26-billion, all of it to be coughed up by the federal government.

• **Financing**—Where will the government get the money? Clay's committee has been working on that, and its thinking is fairly well solidified by now. The idea is to set up a new federal agency empowered to sell 25-year bonds to private investors. The agency would pay off the bonds from funds accumulated through annual appropriations by Congress. Congress, in appropriating these funds, would draw on revenues from gasoline and oil taxes. The number of motorists is expected to continue increasing; so are these revenues.

Clay's committee has no fixed ideas so far on financing the other half of the Grand Plan—the half dealing with accelerated work on streets and roads

outside the present federal-aid system. Probably the states themselves will have to do most of the money-raising for this part of the plan, though it's possible the new federal agency will help them to some extent—perhaps by buying some of their debentures, or by guaranteeing their bonds with federal funds.

Some observers in Washington last week thought they saw the new agency taking shape; Public Roads Commissioner Francis V. du Pont announced that he would shortly resign his post in order to devote full time to the President's Grand Plan. But insiders say du Pont's resignation doesn't mean he will head the new agency. His new position will be as a special assistant to the Secy. of Commerce.

• **Survey**—The Grand Plan is built partly on a highway survey made this year by the states. The survey shows that 15% of the interstate road system is probably adequate for 1974 traffic. The rest—85%—needs improving.

A good deal of this improvement will involve relocation as well as rebuilding. In some places, relocation will be necessary to get around prohibitive costs of acquiring a wider right-of-way. In others, relocation will be dictated by steep grades and bad curves.

The entire package—improving trunk-line, secondary, state, and local highways to Grand Plan standards in 10 years—is estimated at \$101-billion.

Auto Prices

They're mostly up, but a few cuts have been made for competitive reasons. Some of the extras will cost less.

Most of the 1955 models are in the auto showrooms this week, and the shopper was able, for the first time, to compare a wide range of prices. Most cars cost a shade more than last year, though a few—notably the Studebaker and Chrysler (page 114) lines—have been cut in price.

Of course, the factory price is only the beginning in determining what the buyer actually pays for a car. Readjustment of freight rates, for example, makes about as much difference in 1955—model delivered prices as the fluctuations of factory prices do. Where factory prices have been increased, buyers within 1,000 mi. of Detroit will pay more, since freight rates for them are up, too (BW-Oct. 30 '54, p33). But buyers outside the 1,000-mi. radius may save enough on freight charges to more than balance the extra cost at the factory.

• **Narrowing the Gap**—Perhaps the most significant point in the new price structure is the narrowing of the gap between Chrysler and its competitors. This is most important at the Plymouth-Ford-Chevrolet level, where volume is greatest. Ford and Chevrolet raised prices this year; Plymouth, which had been highest of the three, raised three models slightly (\$5 to \$14) and cut three others (\$3 to \$39).

• **At Dealer Level**—To the factory retail prices, you have to add federal excise tax and a dealer handling charge. Prices for 6-cyl., 4-door sedans then line up like this:

Chevrolet 150 line, \$1,728; Ford Mainline, \$1,753; Plymouth Plaza, \$1,755; Chevrolet 210 line, \$1,819; Ford Customline, \$1,844; Plymouth Savoy, \$1,854; Chevrolet Bel Air, \$1,932; Plymouth Belvedere, \$1,953; Ford Fairlane, \$1,959.

Then you pay for freight and for optional equipment. Prices for the extras are mostly down a bit. Ford's automatic transmission now costs \$178 instead of \$183; Plymouth's is down from \$175 to \$165; Chevrolet stays at \$175. Power steering on Ford costs \$91, a cut of \$43 from last year; Chevrolet costs \$85, a \$40 cut; Plymouth costs \$90, a \$35 cut.

In the higher-priced cars, power steering has been cut in price but, generally speaking, you pay more for extras until you reach the point where they are included in the basic price, as in Cadillacs and Chryslers.

Young Heads Back to AAR

At midweek, it looked almost certain that the New York Central RR would take back its seat on the board of the Assn. of American Railroads—a seat it left vacant last June when Robert R. Young won control of the road.

The Central's old seat on the AAR board had been held by William White, until June the road's president. When Young took over control of the Central (BW-Jun. 12 '54, p27), White resigned the presidency and—of course—the AAR seat. Until this week, observers were never quite sure whether Young would fill the seat or pull the Central out of AAR for good. He and the association had, in the past, tangled in many a quarrel over railroad policies.

But as of Wednesday of this week, Young's group had decided that AAR and the Central belong together. Alfred E. Perlman, who came in with the Young group as president of the Central, was ready to accept the AAR seat. The Eastern Railroad Presidents' Conference was ready to nominate him. Since the Central is the nation's second largest railroad, nomination of its president assures his election.

• **Other Friends**—It seemed fairly certain, too, that Young would soon have other friends besides Perlman on the

association's board. The Chesapeake & Ohio Ry., which pulled part-way out of AAR when Young was its chairman, is ready to rejoin as a full-fledged member. Almost certainly, in that case, Walter J. Tuohy, would eventually sit on the association's board. And it's thought possible that Patrick B. McGinnis of the New York, New Haven & Hartford RR will join Tuohy. This would give Young three firm friends in AAR.

Meanwhile, Young's own Federation for Railway Progress—which he founded in 1947 as a kind of competitor for AAR—seems to be losing some of its importance in Young's eyes. With the C&O out of it, it would no longer have any railroad company members. There is talk that it may be merged with the Railway Business Associates, a similar Chicago-based organization.

• **Reasons**—What are Young's and his group's motives for joining forces with AAR, their old sparring partner? For one thing, Young and other railroad men around the country have come closer together in their thinking than was once the case. For another, all concerned want a solid front ready next month when the President's commission on transportation policy presents its long awaited report.

Proxy Battle in Toledo



INCUMBENT Pres. Joseph H. Nuffer fought to keep Air-Way Electric Appliance keyed to one product—a vacuum cleaner.



CHALLENGER Edward Lamb, heading a 22-company empire, won proxy battle for Air-Way control, with diversification as aim.



1 BATTLEGROUND. Nuffer opens special stockholders' meeting to consider Lamb pro



2 DEAL. Lamb counsel, former Atty.-Gen. J. Howard McGrath, asks recess (above). Then, in talks behind closed doors (right), two sides work out a deal.



One Way to Build an Empire



Lamb proposed to enlarge board of directors to give him majority.



3 ALL SETTLED. Henry W. Seney, Nuffer counsel with McGrath and Lamb after agreement—compromise now, with key posts and open future for Lamb.

"In a proxy war, there is no substitute for votes," says Edward Lamb, one of Toledo's most colorful industrialists and head of Lamb Enterprises, Inc., a holding company for the Lamb group of 22 separate firms.

Lamb proved it last week in the showdown round of the proxy battle for control of the Air-Way Electric Appliance Corp. at its home plant in Toledo (pictures). The result was a compromise—at least for the time being—between Lamb and the old management, arranged during recesses of a special stockholders' meeting. But Lamb's interpretation of the agreement isn't likely to be contradicted.

"There isn't much to dispute when we've got the votes, and they recognized that as well as we did," he said. "We don't care about having the titles in the setup—we've got the key men."

• **At Stake**—The meeting was the climax of four months of intensive, often heated campaigning. At stake, besides actual control of Air-Way, with its more than \$10-million assets and net sales since 1946 topping \$100-million, were:

• Whether the company should stick to its single product—the Sanitizer vacuum cleaner—or diversify. Lamb favored using some of the accumulated capital to acquire firms in other fields or expand into other products. The old management under Pres. Joseph H. Nuffer argued for one recognized product as a better bet.

• Whether Lamb could succeed in expanding his holdings into the sweeper business; they now include radio and TV stations, a newspaper, an advertising agency, manufacturing, investment, and real estate interests.

The battle began last June 4 when Lamb bought 65,000 of Air-Way's 366,000 shares. He first sought unsuccessfully to get two nominees into vacant directorships. Later, he blocked as "not sound" a Nuffer proposal to merger with Firth Carpet Co.

• **Settlement**—Lamb turned up at last week's meeting owning or controlling personally some 125,600 shares, plus enough proxies to vote, in all, 215,000 of the 316,200 shares represented.

Lamb came out with four (including himself) of Air-Way's nine directors, against four for the Nuffer group, with an impartial Toledo man in the ninth post. A newly created executive committee of five includes Lamb and an associate, Nuffer and an associate, and the impartial Toledo man.

Two top company spots go to Lamb men (the "key men" he mentioned). Former U. S. Atty. Gen. J. Howard

McGrath, now Lamb's executive vice-president and general counsel, will become Air-Way's general counsel. Lamb's executive assistant, Frank C. Oswald, becomes treasurer immediately. Other officers remain the same.

So much for the present. But there's an annual meeting next spring. Lamb has two of the three members of the proxy solicitation committee. He says he's shooting for a board of "seven from our side and two from theirs."

• **Top Man**—The Air-Way skirmish was no new experience for Lamb. He is a product of a long career of court battles—some of a rather spectacular nature. He has come out of these battles and his business dealings as top man of a complex setup said to be worth \$25-million to \$30-million. Lamb himself will neither confirm nor deny that estimate, but his own newspaper—the Erie Dispatch—used the \$30-million figure last month. In addition to corporations, he collects antiques and autographs.

He owns all the stock of the parent firm, Lamb Enterprises, Inc., set up in 1946. Its operating arm for manufacturing is Lamb Industries, Inc. His chief manufacturing enterprises are C. L. Bryant Co., making furnaces and conversion burners, and White Products Corp., making water heaters.

Besides the newspaper, Lamb owns Station WICU-TV in Erie, Pa., a radio station there, two in Toledo, and one in Orlando, Fla. Another property is the Lamb Foundation, a charitable unit with close to \$1.5-million assets.

• **Career**—Lamb began as a corporation lawyer in Ohio in 1928, developed a clientele of big companies. Then he started to dabble in politics. In the 1930s, he acquired a reputation as a good labor lawyer, and quickly built up a list of 77 local and national labor organizations as clients.

One of his cases, the Mt. Clemens Pottery Co. case, resulted in 1946 in the famous Supreme Court decision (in his favor) setting forth the portal-to-portal principle for wages.

Even since he turned to business enterprise, Lamb's avowed liberal leanings have made him a frequent target of Congressional critics and others. In connection with his application for renewal of his Erie TV license, the Federal Communications Commission is currently looking into charges that he did associate with or contribute money to Communist groups years ago (charges he vigorously denies). The FCC ordered hearings to determine whether his statements to it denying such associations "constitute misrepresentation and concealment."

Busy Christmas for Retailers

● Most merchants across the country expect to do better in 1954's yearend shopping spree than in last year's—some of them 10% and 20% better.

● Hardgoods are climbing from their year-long slump. Even television is selling well in most cities.

● Customers are feeling happier. Some, apparently, are feeling improbably rich.

The 25 shopping days between Thanksgiving and Christmas will be, as they always are, days of steadily increasing frenzy. Stores will become progressively more crowded. Customers will become more hurried, salespeople more harried. Little children will be mislaid. Feet will be stepped on, packages dropped and trampled. Displays will be knocked over. People will have ridiculous accidents on escalators and in revolving doors.

And in the backs of stores, and upstairs in executive offices, the owners and managers will pace nervously. The pre-Christmas month, for them, is more than just a time of increased shopping activity. It is a time when many of the year's problems come to a head. A good Christmas can make up for a slack year; and, conversely, a slack Christmas can wipe out the expected gains of a good year. The days between next Thursday and Dec. 25 will decide, for many retailers, how 1954 as a whole compares with 1953.

• **Merry Men**—This week, BUSINESS WEEK reporters talked to retailers all over the country to find out how the 25 fateful shopping days look from here. The reporters asked, in particular, whether the fall upturn in softgoods (BW-Sep. 25 '54, p25) has been or will soon be followed by an upturn in hardgoods. They asked about the mood of customers and the Christmas inventory thinking of the store buying experts. And they asked how this year's Christmas will compare with last year's—and how, in the end, the two entire years will compare.

The retailers answered merrily enough:

• Yes, most of them said, the long-awaited hardgoods comeback is here. Appliances are moving nicely. Even television, which many thought doomed until color TV went into full-scale production, is now selling well.

• Customers in most areas have lost the fear of recession that lurked within them in the 1953 Christmas season. Even in areas still struggling with worse-than-normal unemployment, cus-

tomers seem sure that better times are just around the corner. Families hurt financially by the recession are willing to bet on good times by buying fairly heavily on credit.

• This year's Christmas, most retailers believe, will be better than last year's—anywhere from 2% to 20% better. For some retailers, this will make the year as a whole just about even with 1953; for others, a few percentage points better. Only a few expect a slacker Christmas or a lower sales total for the year. Most are increasing their Christmas inventories—though not by much—over last fall's.

• **Hardgoods**—Retailers enjoy contemplating this picture. They particularly enjoy the part contributed by appliances. The uptrend in appliances is not just a Christmas phenomenon. Retailers expect it to carry into 1955.

A big appliance store in San Francisco, for instance, reports that already in the third quarter its sales were 10% above the same period of 1953. All its major appliances except clothes driers and ironers are selling better than before. Its small appliances—toasters, coffeemakers—are not doing so well, but these are Christmas items. The store expects them to pick up fast in the week after Thanksgiving, eventually to hit a 12-month total 10% above 1953's.

The optimistic tone of this report is typical, though the details are not. The appliance upturn has been an item-by-item, area-by-area movement. A Nashville (Tenn.) department store reports big-ticket appliance sales 25% above last year's. In Louisville, Ky., retailers say appliance sales are just about even with 1953. Appliance men in Miami, Fla., tell exactly the opposite story to the one told in San Francisco: Small appliance sales are up, while washing machines, freezers, and refrigerators have been lagging. But despite this wide variety of experience, appliance men almost everywhere are convinced that their business as a whole is heading for happier days.

• **Television**—Probably the happiest of all dealers in electrical consumer goods

—for they expected to be the unhappiest—are the men who sell TV sets. Almost everywhere, television is selling better than anyone dared hope earlier in the year. One big department store in the South says its sales of television sets are now running 35% above last year's at this time.

There are many explanations for this development. The one you hear most often is that "people are tired of waiting for color." When color TV was first announced, consumers held back purchases of monochrome sets. Now they have apparently decided that color TV is farther away than they once thought. The pent-up demand for television has broken through in a torrent.

• **Softgoods**—Meanwhile, the fall upturn in softgoods shows no sign of withering. Winter coats are selling feebly in many areas, but merchants in these areas generally blame unseasonably warm weather. When the tag-end of autumn finally disappears, these merchants feel, there will be a rush on winter coats.

New Paris styles have not yet contributed much to sales of women's suits and dresses; the older styles are still carrying on. But according to a retailer in Alabama, "men have accepted new styles—for instance, pastel shades of shirts—more readily than any style changes in recent years." A report from Houston notes, somewhat apprehensively, that at least one knowledgeable clothier expects "pink, blue, and yellow accessories on men by January. Even the most conservative will have a sporty vest or two."

• **Luxury**—Merchants in many parts of the country have spotted another trend that was not present last Christmas: a trend toward high-priced, luxury items. "There's a feeling of affluence in the air," said a San Francisco retailer this week. "We recently sold a couple of fur coats that ran between \$8,000 and \$10,000."

A Los Angeles report agrees: "Merchants say there are four classes here—poor, middle, rich, and stinking rich." In a neighborhood that ranks second from the top in this classification, a liquor retailer says he is selling cases of Scotch whiskey at \$11.75 per bottle, expensive wines, \$11 and \$15 liqueurs. A liquor man in the South this week pointed to one of his displays. "See that shelf over there?" he said. "I've emptied it twice this week." It was the champagne rack.

The "feeling of affluence" extends to many other lines. In Syracuse, N. Y., jewelers report flourishing business. The fur coat business has come to life in Omaha, as in Atlanta and De-

troit. High-priced toys are selling fast in Atlanta and Salt Lake City.

Another indication that the U.S. consumer feels less worried about money this Christmas is an increase in credit buying. "I'm always encouraged to see credit up," a Washington (D.C.) retailer said this week. "It indicates customers whose future looks rosy, who aren't afraid to tie up future income."

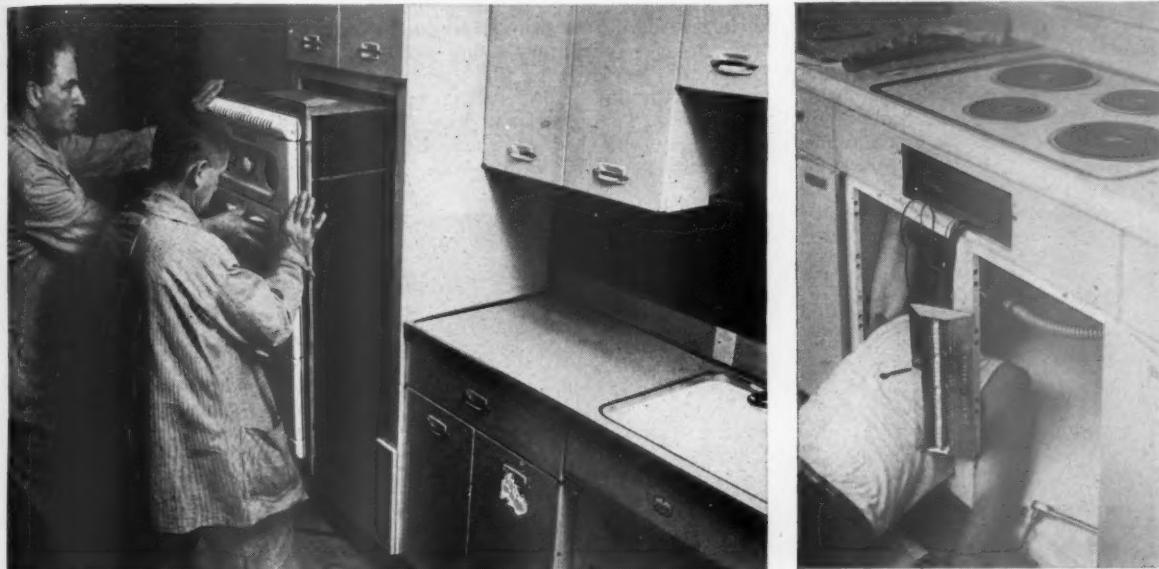
Credit buying is up, though in some

cases only slightly, in many U.S. cities. To encourage it, retailers in many areas are adopting the idea of "credit insurance": If the customer dies, his debts to the store are taken care of. The store foots the bill for this insurance.

• **Off the Track**—The U.S. is still in the process of climbing out of the recession, and some cities and some retailers are still not happy. A jeweler in Columbus, Ohio, for instance, is pessimistic about Christmas business. In Hous-

ton, Detroit, and Pittsburgh, dealers have noticed few symptoms of affluence. A television man in Louisville, Ky., feels he could "make more money investing in government bonds." As might be expected when the economy is going through a change, retailers' experiences are mixed.

But it's true almost everywhere, as a Midwest merchant says, that "the customers are getting happier." He adds: "That's the important thing."



BUILT-IN wall oven (left) and surface-unit range are samples of what the appliance industry is cooking up for the home. But . . .

Dealers Stew in Tailored Kitchens

For nearly 20 years, makers of major home appliances housed their kitchen equipment in big white boxes. Now there's a swing to color and decentralization in the kitchen, and dealers are wondering what it will do to their business.

This week, General Electric Co. unveiled its 1955 models, revealing that it, too, has finally succumbed to the "new look" in kitchen equipment (BW-Oct. 9 '54 p.124). Two other major companies are on the verge of adopting the same trend.

Featuring both colored and built-in models, GE's new line picks up at a point already reached by other manufacturers over the last five or six years, and carries the radical designs a step further.

Here are some examples of GE's "dream kitchen" equipment:

• A complete line of deluxe ranges, refrigerators, dishwashers, and washer-drier combinations in the widest range of colors yet—turquoise green, canary yellow, petal pink, cadet blue, and wood-tone brown.

• A cabinet-like refrigerator-freezer combination that hangs on the wall at shoulder level.

• A new waist-high built-in wall oven and companion surface-unit range, similar to the ones being installed in the picture above.

• Washer-drier combinations that fit under sink or table.

Prices for the new line are still not fixed, but the company says they will be "somewhat higher" than for its white lines.

• **Discord**—Appliance dealers are rather less happy over the new trend.

First, installing the built-ins calls for a specialized brand of mechanics. Many dealers wonder whether they will have to become expert electricians, plumbers, and carpenters—in addition to their regular duties.

The dealers point out that most equipment is going into new houses. According to a survey made by Electrical Merchandising, a McGraw-Hill publication, the biggest manufacturers in the electrical appliance business think that anywhere from 75% to 90% of

their built-in model sales will be to contractors. And relatively few people are in a position to tear out built-in equipment in redesigning their kitchens, so the dealers' replacement market for the "old" appliances is still limited.

Second, stocking a variety of models in a spate of colors poses a real problem for the dealer, particularly the smaller dealers. When Mr. Blandings remodels his dream house, he's too impatient to wait six months while his local dealer orders a petal pink refrigerator from the manufacturer.

• **Confident**—Spokesmen for the appliance makers admit they don't have the answers to all these questions. In fact, some manufacturers still feel queasy about the "new look," regarding it as a sort of monster that was foisted on them by architects, designers, women's magazines, and the kitchen-cabinet makers who got in on the ground floor. Nor have all the big manufacturers jumped in yet. Some wonder what will happen when the housing boom peters out.

But others—including GE—think they know what they are doing. GE explains

its tardiness in getting into the field on the grounds that it needed the eight years of research it took to perfect its designs. Also, GE ran a survey of homeowners, found that over half the housewives wanted their next big-ticket appliance to be in color. Gas appliance makers, too—who hold an estimated 50% of the home range market—are trending to color and built-ins.

Proponents of the new look claim that cost will not always be a factor. Color is already being put in some of the cheaper models, and the price of built-ins—which still account for only 5% to 10% of the market—will come down, they say. Installation, too, will be made easier, the manufacturers maintain, although dealers will still probably have to hire electricians, carpenters, and plumbers—or subcontract their installation work.

• **Here to Stay**—But whatever happens, the designers' revolution of the kitchen is sure to make itself felt. One big boost comes from the consumers' changing living habits. By separating oven from surface units of ranges and freezer from refrigerator, appliance manufacturers say they are adapting the kitchen to the easy informality of suburban living.

Meanwhile, the industry is still turning out plenty of white appliances. In its announcement this week, GE plugged its new colors on the basis of their adaptability to fit in with white kitchens. And the company—along with other makers—is featuring a sink that, instead of decentralizing the various units, lumps stove, dishwasher, and washer-drier. This model was designed for people who live in small city apartments.



LINGAN A. WARREN

Goes to Bat for Retailers

A private fight between Safeway Stores, the nation's second largest food chain, and its suppliers broke into the open last week. Lingan A. Warren (picture), Safeway's outspoken president, told the manufacturers what he doesn't like about their trade practices.

Warren has long criticized the brand-name manufacturers for policies he regards as inimical to the supermarket retailer. However, his list of pet hates in trade practices got to the press more or less by accident. Warren had been invited to address a small group at the

Grocery Manufacturers of America convention in New York. The meeting was off the record, but someone leaked portions of Warren's speech. When these got into print, Safeway decided to release Warren's bill of particulars.

• **Objections**—The things that Safeway dislikes fall into five main categories:

Advertising allowances. These are sums that retailers get from a manufacturer for devoting a specified amount of advertising space to an item. "For 20 years," said Warren in an interview last week, "I've been saying that this

is a penalty for a failure to do something, rather than a reward for special service."

Coupons. These give the buyer, say, 10¢ off on a box of Whizzies when she presents them at a retail store. Safeway says a 2¢ handling fee (the usual amount paid to the retailer on each coupon) doesn't cover costs, so that the retailer bears part of the cost of promoting a brand.

Store delivery. Warren wants his goods f.o.b. freight terminal or delivered at his warehouses. He has his own distribution system and doesn't want to pay for delivery at his stores. He particularly dislikes the practice of averaging freight charges, which applies the same costs for all stores in an area regardless of how far each actually is from a terminal.

"Loading" deals. Manufacturers make special offers to induce the retailer to order more goods so as to qualify for a special price. Warren speaks of a display-allowance loading deal that "required us to purchase six months' supply of a brand."

Space-grabbing deals. These are devices to grab more space on store shelves for a product. Example: three boxes of mixes packed on a round cake pan.

• **Loss of Independence**—In essence, Warren objects to any policies that infringe on the retailer's right to buy what he wants, when he wants, and to decide the price and the kind of display he wants to give it.

"It's a statement of things we consider undesirable," says Warren. "But I don't know what we can do about it."

This admission of futility points up the thing that disturbs Warren: the way the growing power of the national brands has "taken away the bargaining rights" of the retailer. The clash has developed between the national brands and the supermarkets; the battleground is the shelf space in the supers.

The fact that there are fewer but bigger markets these days intensifies the struggle. Every manufacturer is trying (1) to force his way onto the shelves by every means possible, (2) to get more space, (3) to shove his competitor off. Tactics range from a "Twin-Pack Special—2 for 49¢" to offering a Cadillac in a contest for sales clerks.

• **Counter Tactics**—Warren has a long history of being a maverick in the industry. He once refused to carry Coca-Cola because the company insisted on delivering directly to the store. Back in 1941, after a feud with the late George Washington Hill over promotion policies of American Tobacco Co., he almost bought Axton-Fisher Tobacco Co. (Transamerica Corp. beat him to it). And he is proud of having talked General Foods out of giving advertising allowances on Maxwell House coffee a few years ago.

some-
special

er, say,
en she
afeway
usual
each
that the
of pro-

ats his
or de-
has his
doesn't
stores.
ctice of
plies
an area
ually is

rs make
ailer to
y for a
f a dis-
at "re-
months'

are de-
shelves
the boxes
ake pan.
essence,
es that
to buy
and to
display

ve con-
. "But
out it."
oints up
en: the
ational
gaining
ash has
brands
eground

ver but
ifies the
s trying
shelves
to get
ncompetitor
in-Pack
a Cadil-

s a long
in the
o carry
insisted
e. Back
the late
romo-

coco Co.
Tobacco
him to
g talked
vertising
coffee a

Look at the sum that was saved for



(another cost-cutting case) by Mr. Friendly

Company: Fayette R. Plumb, Inc. of Philadelphia and St. Louis, manufacturers of the famous Plumb hammers, hatchets, files, sledges and axes!

Record: An American Mutual policyholder since 1908.

Savings through lower premiums: \$16,125 saved in 6 years alone.

Savings through dividends: \$10,825 saved in the same period.

Total Savings: \$26,950.

MORAL In company after company, from coast to coast, we've helped to reduce accidents and premiums to far below average for the field. This represents the prevention of thousands of disabling injuries and deaths, as well as the saving of millions of dollars. If you're interested in the special service that reduces overhead and ups worker morale, write for "The Complete Case of Fayette R. Plumb, Inc." American Mutual Liability Insurance Company, Dept. B-115, 142 Berkeley St., Boston 16, Mass.



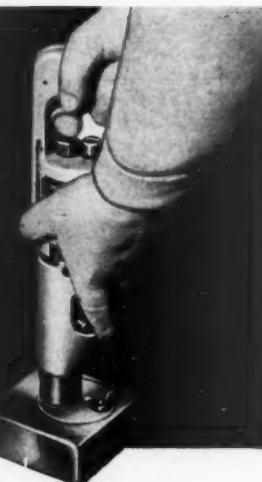
AMERICAN MUTUAL

*Service from salaried representatives in 78 offices!
Savings from regular substantial dividends!*

© 1954, AMERICAN MUTUAL LIABILITY INSURANCE COMPANY

BUSINESS BRIEFS

**Here's the tool
that's saving up
to 80% in
fastening time!**



...the REMINGTON STUD DRIVER



Electrical outlet box is quickly anchored to concrete or brick wall.



Fastening duct hanger to concrete ceiling is no problem—the tool weighs less than 6 pounds.



Pipe and conduit quickly anchored to concrete or steel with Remington clips.

"We saved \$1,000 and three weeks' working time on one job alone." This is the kind of report we're getting every day from users of the Remington Stud Driver. It's not surprising. Quick, cartridge-powered action makes this amazing tool the world's speediest fastening system.

Workmen can set as many as 5 fastening studs a minute with the Remington Stud Driver—every stud arrow-straight! And with this speed goes real economy. Completely self-powered, the tool requires no outside power source. There's no extra equipment to worry about, no wires, no cables!

Does your plant superintendent know about all the advantages of the Remington Stud Driver? There are hundreds of uses for it in setting up equipment . . . doing repair work . . . making plant improvements. You'll find it pays for itself on the first few jobs. To learn how you can cut fastening costs, just send in the coupon below.

"If It's Remington—it's Right!"

Remington 



Listed & Approved by
Underwriters' Laboratories, Inc.

MAIL THIS COUPON TODAY

Industrial Sales Division, Dept. BW-11
Remington Arms Company, Inc.
Bridgeport 2, Connecticut

Please send me free copies of the new booklet showing how I can cut my fastening costs.

Name _____
Position _____
Firm _____
Address _____
City _____ State _____

The mystery group that A. M. Byers Co. said was seeking stock control turns out to be a group of its own stockholders. The group—116 Pittsburghers and New Yorkers—claims that it already owns 36% of the stock in the Pittsburgh maker of wrought iron. The insurgents say they will soon have the majority holding needed to topple the third-generation management now running the company.

Steel optimism bloomed a bit in the Pittsburgh producing district this week. Three more blast furnaces were lighted off—one by U.S. Steel, one by Weirton, one by Pittsburgh Steel—bringing the area total to 35 furnaces active out of 47. The indication is that the big steel producers scent a continuing demand for pig iron.

Cooperation's end: The Ontario Securities Commission no longer demands that brokers selling Canadian stocks in the U.S. comply with Securities & Exchange Commission rules. In lifting the ban, OSC said the agreement had been exploited by U.S. promoters, with Canadian brokers getting the blame. But it warned Canadian sellers not to resume their old high-pressure methods.

The New Haven Railroad got back into the news when a group headed by Frederic C. Dumaine, Jr., ousted head of the road, sold 50,000 shares of preferred stock, worth around \$3-million. It's an open guess whether the move means Dumaine is dropping his battle to regain the control that he lost last spring to Patrick B. McGinnis (BW-Apr. 24'54, p.33).

Off the hook: Kerr-McGee Oil Industries isn't going to have to pay for its \$15-million blooper in bidding for the wrong Louisiana tideland oil and gas leases (BW-Oct. 23'54, p.31). The General Accounting Office is forgetting the whole thing and giving back the \$3-million deposit posted by Kerr-McGee. The company had absent-mindedly bid on 180 leases that it didn't want at all.

Dutch Unilever, Holland's branch of the world-wide corporation, is thinking of asking for listing on the New York Stock Exchange. If it asks and is accepted, Dutch Unilever will join that earlier fiscal immigrant, Royal Dutch Shell (BW-Jul. 10'54, p.114).

Hotel to motel: Milner Hotel Management Co. (BW-Sep. 18'54, p.186), a sizable hotel chain, plans to develop a nationwide chain of motels.

Byers
l turns
stock-
burghers
it al-
in the
n. The
have
topple
nt now

in the
s week.
lighted
Weir-
ringing
ive out
the big
ing de-

Securi-
demands
ocks in
cities &
a lifting
ent had
rs, with
blame.
not to
methods.

ack into
by Fred-
head of
of pre-
million.
e move
s battle
lost last
(BW-

Indus-
for its
for the
and gas
the Gen-
forgetting
ack the
y Kerr-
absent-
that it

anch of
thinking
ew York
d is ac-
oin that
Dutch

Manage-
186), a
develop

20, 1954

See what adhesives are doing today!



Trimming cloth—and costs at Graflex



What you see above is a plastic-coated cloth that has just been roll-coated with a 3M adhesive, EC-880.

After this coated cloth is allowed to dry, it will be die-cut into smaller shapes and sizes for eventual use. At that time, the adhesive will be reactivated with a solvent and the trimmed piece will be pressed into permanent position on a Graflex camera case.

By roll-coating EC-880 to full sheets of this cloth, Graflex saves considerable time, material and money. Another advantage of

EC-880 is its tack-free dry film. This makes it easy to handle during die-cutting operations . . . makes it a simple matter to stock an inventory of these specialized parts, too.

See what adhesives can do for you . . .
Whatever your fastening problem—there's a 3M adhesive to help you produce more—more efficiently and economically. For details, call your 3M sales representative. Or, write today for free booklet. Address: 3M, Dept. 111, 417 Piquette Ave., Detroit 2, Mich.

SEE OUR CATALOG IN
PRODUCT DESIGN FILE
or write for copy

ADHESIVES AND COATINGS DIVISION MINNESOTA MINING AND MANUFACTURING COMPANY

417 PIQUETTE AVE., DETROIT 2, MICH. • GENERAL SALES OFFICES: ST. PAUL 6, MINN. • EXPORT: 122 E. 42 ST., N. Y. 17, N. Y. • CANADA: LONDON, ONT.
MAKERS OF "SCOTCH" BRAND PRESSURE-SENSITIVE ADHESIVE TAPES • "SCOTCH" BRAND SOUND-RECORDING TAPE • "SCOTCHLITE" BRAND
REFLECTIVE SHEETINGS • "3M" ABRASIVE PAPER AND CLOTH • "3M" ADHESIVES AND COATINGS • "3M" ROOFING GRANULES • "3M" CHEMICALS



SPRA-TAINER® Does It Again!



SPARKLING GOLD



"Works Like Magic"

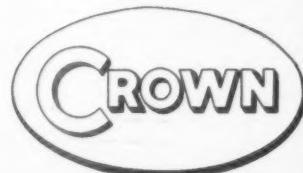
FOR ALL THE FAMILY

S-p-r-a-y-s hair in place . . . conditions it . . . makes it manageable. A "must" in the active life of Mom and Sis. Ideal for keeping Dad well groomed. Perfect for training Junior's unruly hair.

Sparkling Gold is pressure packed in the "Modern Design" and safe, seamless construction of SPRA-TAINER by Daggett and Ramsdell, for exclusive distribution by

the Fuller Brush Company.

Famous SPRA-TAINER is one of many finest quality cans of Crown creation. Choose from our Complete Line to meet your requirements for modern metal packages that sell as well as protect your product.



One of America's Largest Can Manufacturers

**CROWN CORK & SEAL COMPANY, INC.
CROWN CAN DIVISION**

PHILADELPHIA • Chicago • Orlando • Baltimore • New York • Boston • St. Louis • San Francisco

WASHINGTON OUTLOOK

WASHINGTON
BUREAU
NOV. 20, 1954

A BUSINESS WEEK



SERVICE

Pres. Eisenhower will ask tax legislation in January, knowing full well that his request will set off a policy battle with the Democratic Congress. But, advisers point out, that the alternative would be to allow \$2.2-billion of taxes to expire, with the result that Eisenhower's balanced budget goal would be pushed still further into the future. The situation:

The 52% corporate income rate expires Apr. 1. Then the tax is supposed to revert to the old 47% level. The revenue loss—\$1.2-billion.

Some excise reductions also are scheduled for 1955 unless Congress acts. These are rates on autos, gasoline, liquor, and tobacco—\$1-billion.

The Administration wants rates retained to protect revenue. If the cuts go through, the deficit in the budget for fiscal 1956, which will be sent to Congress in January, will be sharply boosted.

Any tax request will give the Democrats a chance to push their ideas—tie them to Eisenhower-wanted legislation and thus make a veto tough.

The Democrats will talk up individual income cuts. This means relief for those who vote. But action of any consequence, such as a jump in the \$600 personal exemption, would be costly in terms of revenue.

There'll be threats to soak corporations—reimpose the excess profits tax in order to give individuals cuts without a net revenue loss.

This year's relief from the dividend "double tax" will come under hot fire—with Democrats charging it favors the rich.

The upshot may be a compromise pointed to 1956 when the White House will be the big election-year prize. Eisenhower may be forced to accept some excise reductions in order to get a one-year extension of the 52% tax on business profits. The one-year extension would practically guarantee another tax battle in 1956, when the Democrats can make their big push for individual income tax cuts just ahead of the general elections.

The big Democratic play for the 1956 farm vote will be made in 1955. If it fails, 1956 will give the opportunity for a second try.

Here's the strategy: Rewrite the Eisenhower-Benson flexible price-prop law so that supports will go back to 90% in 1956. Then the Democrats could show farmers a dollar mark on what's been done for them.

Eisenhower can upset this strategy with a veto—if any such farm program reaches his desk next year. And he can make his veto stick. The Democrats take this into account. Their plan is to repeat the maneuver the next year, 1956, and force another veto just ahead of the elections.

There's behind-the-scenes maneuvering on key labor posts, with politics showing on all sides. There may be some trades before there's a settlement.

The hot spot is the NLRB general counsel job. The term of George J. Bott, the Democratic holdover, has expired. Eisenhower picked Theophil Kammholz, Chicago attorney, as successor. But Senate Democrats, who must confirm Kammholz, are talking trade—keep Bott and we'll agree on other jobs. This will be hard to take—like saying 1952 didn't mean anything.

The other jobs are the chief of the Mediation Service (Labor Secy. James P. Mitchell wants Whitley McCoy out) and a replacement for NLRB member Albert C. Beeson, who has declined to accept reappointment.

WASHINGTON OUTLOOK

(Continued)

WASHINGTON
BUREAU
NOV. 20, 1954

This is the sort of thing Eisenhower will face, more and more, with Democrats controlling the Senate, which must confirm men put in key jobs. He can fight, refuse to accept compromises that come from the Democrats. And he probably will. But this will make it even harder for Washington to attract the men it wants. Hostile confirmation hearings and inquiries are hurdles that will discourage many men who might come to government. If Eisenhower does have to bargain on appointments, the odds are that he will do it with Southern Democrats and not the New Dealers.

— • —
Washington sees more aggressive wage demands in 1955. Reasoning behind this conclusion is along these lines:

The business uptrend is regarded as more than seasonal and likely to carry through the coming year. "Unions are tougher when things look up."

Living costs may tilt slightly upward. The index has been marked by stability, with the wiggles on the downside.

So the climate favors more and bigger wage raises.

— • —
Clues on how Pres. Eisenhower will deal with the Democrats when they take over Congress in January already are showing up.

Efforts at bipartisan cooperation will be limited to national security matters, which means foreign policy and defense. Eisenhower will consult the Democratic leaders on these, try to take them out of politics.

Domestic policy will be the fighting ground, with Eisenhower writing his program without much concern for Democratic feelings.

— • —
Party leaders agree that's the way it should be. The domestic issues, barring an unexpected upheaval abroad, will set the 1956 stage.

The attitude of Joe Martin, who will step down from the Speakership to be the GOP House Leader again, is that the Republicans must provide leadership in domestic affairs—offer a Republican program. He feels that any cooperative program, even if the Democrats would go along, would weaken the party system and he's against it.

A similar stand is being taken by Sam Rayburn, the Democratic leader who returns to the House Speakership. His position is that Eisenhower won't be opposed just to make a fight. But he sees nothing in the election result that should swing his party away from its past position on policies backed by Eisenhower.

— • —
Eisenhower will come in for more personal attacks as 1956 approaches. The reason is pretty simple: Seldom if ever has a Presidential candidate who could claim high personal popularity been defeated by attacks made on the party he headed. And Eisenhower is still very popular.

Vice-President Nixon will draw hotter fire, too. Democratic leaders are especially bitter about his charges of Red softness.

— • —
The play of politics will make for confusion over the next two years. Politics always is big business in Washington. But with a divided government and a Presidential election coming up, it will be bigger than ever. So, have the political angles in mind as you make business and personal decisions that Washington may influence.



Pittsburgh COLOR DYNAMICS

**Helps Achieve
Ultra-Accurate Workmanship
in Graflex Plants**
**By reducing eye fatigue,
properly engineered colors
aid operators to make
world-famous camera equipment
with less re-work and scrap!**



Let Us Make an Engineered Color Study of Your Plant—FREE!

• Why not investigate what COLOR DYNAMICS will do in your plant? Send for our free book which explains this painting system and how to use it. Better still, call your nearest Pittsburgh Plate Glass Company branch and ask to have a representative give you a comprehensive engineered color study of your plant—without cost or obligation. Or mail coupon at right!

PITTSBURGH'S PAINTING SYSTEM of COLOR DYNAMICS, purposefully used on walls and machines in the plants of Graflex, Inc., of Rochester, N. Y., improves the efficiency, safety and morale of the operators who make the world's best-known high-speed cameras.

Photographic equipment made by this pioneer maker is known to press and cameramen for its versatility and reliability. Industry and military use its identification and microfilming cameras. Telephone companies use its meter-recording cameras. To the Armed Services, Graflex is a leading source of combat and aerial cameras, artillery telescopes and fire-control devices.

The many ways in which operators in the Graflex plants benefit by the use of COLOR DYNAMICS are best summarized in this comment of M. B. Moore, vice president and factory manager:

"Because of the precision our production requires, it is important that our operators have the best possible seeing conditions. By painting walls and ceilings in eye-



rest colors and by using colors on machinery that differentiate working from stationary parts, according to COLOR DYNAMICS, we have relieved eye strain and reduced physical fatigue. An appreciable part of the reduction in re-work and scrap can be attributed to this improvement of our operators' environment.

"Safety, too, has been improved. Our recent record of 411 working days without a lost-time accident gained for us an Award of Merit from the National Safety Council. This improvement in productive efficiency and safety has enhanced morale, creating friendlier relationship and greater cooperation among the members of our organization."

Send For FREE Book!

Pittsburgh Plate Glass Co., Paint Div.
Department BW-114, Pittsburgh 22, Pa.

- Please send me a free copy of your booklet "Color Dynamics."
 Please have your representative call for a Color Dynamics Survey without obligation on our part.



Name _____

Street _____

City _____

County _____

State _____



PITTSBURGH PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED



Lasts like Methuselah...lowers costs, too-a new kind of electric typewriter

WHEN WE SAY the new Royal Electric "lasts like Methuselah," we mean that it is rugged and lasts a long time.

We don't mean it will last 969 years, the age to which Methuselah is reputed to have lived, for who would want a typewriter, *even a trouble-free Royal Electric*, to go on until the year 2923?

So, why not ask the Royal Representative to bring the long-lasting Royal Electric to your office and demonstrate it?

You'll learn about the seven vital improvements

which mean happier personnel and better work at a definite dollars and cents saving.

You'll find out how the new Royal Electric makes each operator more productive and lowers the cost per typing station.

With the time saved, the filing technique of your people will improve. They'll answer the telephone more politely. They'll have time for that extra courtesy at the reception desk which often makes a big difference in first impressions.

Why not telephone the Royal Representative?

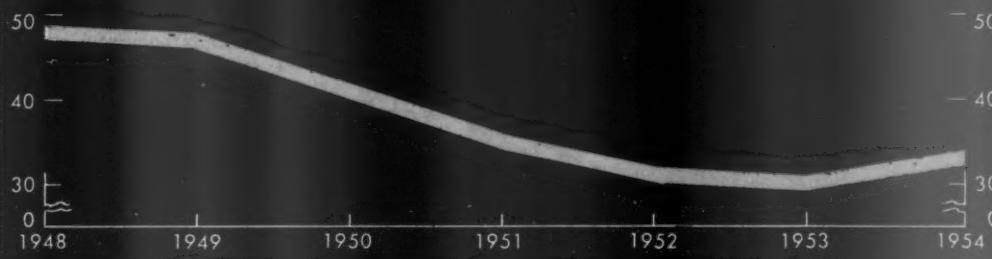
World's largest manufacturer of typewriters...

ROYAL[®]
electric portable
standard
rotype business supplies

Industrial Air Conditioning Is Booming...



York's Percent of All Business Awarded



...But York Hasn't Kept Pace With the Industry

Data based on estimates by York Corp.

© BUSINESS WEEK

TO WIN A BIGGER SHARE, YORK IS . . .

Splitting to Serve Two Markets

Within the next couple of months, York Corp. will have accomplished what it set out to do in the middle of this year—split its organization right down the middle.

For a number of reasons, the cleavage is a natural one for the \$90-million air-conditioning and refrigeration company. Among them:

- York serves two distinct markets—industrial and commercial. Right now about 60% is commercial, 40% industrial.

- The engineering and production characteristics of these two lines are distinct. Industrially, the products York makes are generally engineered for specific contracts, such as air-condi-

tioning plants for office buildings or factories. Commercially, its products are relatively small package units—up to 30 hp.—for mass production and sale to the public or to stores.

- Productionwise, York's facilities in its home town of York, Pa., are set up so that industrial products are made in one plant, packaged units in another.

- Why—This handy distinction in York's markets and production merely made the job of severing the business somewhat easier—though there were still plenty of problems. It doesn't explain the incentive and the timing.

You get some idea of that from the charts above. They show dramatically why York's president, Stewart E. Lauer,

finally decided this year that York had long since outgrown its organizational pants.

As one officer put it the other day: "We missed a market." He meant that since 1948, when York was getting almost 50% of the major industrial business that was around, York has steadily been losing market position in that field. It admits ruefully that competitors stepped in to grab an ever larger share—even though York's own business was growing.

On top of that, York's early entry into room air conditioners—it claims introduction of the first workable model in 1934—has been under attack in the past two or three years by big and small

Pin Point your dealers the way GENERAL ELECTRIC does...

This and similar G-E ads appear in Better Homes & Gardens, American Home, House Beautiful, Small Homes Guide, Home Modernizing.

with TRADE MARK SERVICE in the 'yellow pages' of telephone directories!

General Electric's Home Heating and Cooling Department recognizes telephone directory advertising as a major element in their marketing strategy.

They say, "Trade Mark Service serves to readily identify the G-E Dealer with national advertising, and it also tells the consumer where he can buy the merchandise for which we try to create a demand through advertising."

Trade Mark Service has been used for more than 15 years to identify G-E products. It strengthens the weakest link in any manufacturer's chain of distribution, namely, tying together of consumer and dealer at the local level.

Let 40 million telephone directories from coast to coast (or part of them in any specified markets) pin point your local dealers for prospects.

For further information, see Standard Rate and Data (Consumer Edition) or call your local telephone business office.



companies grabbing the opportunity to top this booming market.

Capping everything, York watched 1954 turn into something of a nightmare for small packaged air conditioning—with overproduction, unseasonal weather, profit-eating price reductions.

I. Growing Up

York traces its history back beyond the turn of the century. For years, its chief job was building ice plants. In 1928, it pulled together a loose-knit confederation of operating and sales units to form the York Ice Machinery Corp. It set up a typical small-company, one-market organization—functional in nature. There were vice-presidents of engineering, manufacturing, and sales, who ran their particular functions for the entire organization.

Later, as new products put York into the air-conditioning business, the chief operating jobs began to split into different problems—engineered, contract jobs, and mass assembly products. Still, a production man, say, could continue to handle his dual role as long as the company was small.

- Postwar Boom—After the war, air conditioning boomed beyond the wildest expectations. York grew from a \$15-million company in 1939 to its present size, with a raft of products and components for others.

Both ends of the business zoomed, so management's attention was divided between growing markets.

- Splitting—The new setup just introduced takes this schizophrenic role of top operating people into account. It sets up two divisions—Industrial and Commercial—with a vice-president over each reporting directly to Pres. Lauer. Each division has profit-and-loss responsibility. A third division, International, is similarly organized.

The two principal operating managers have their own sales, engineering, production staffs. Before Jan. 1 they will be turning in monthly figures that will tell whether they are making money as separate businesses.

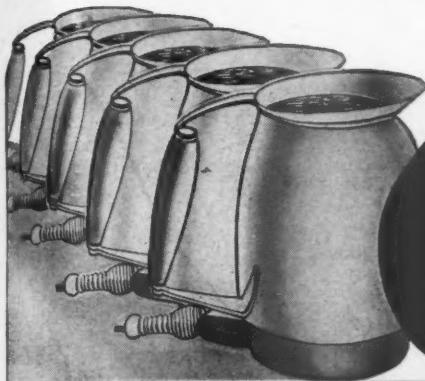
II. How You Do It

To any student of organization, this division of York's business looks logical and simple.

But for an old-time, tradition-en-crusted company like York, splitting apart is no simple matter.

- Getting Started—York's decision to act goes back to last May. It wanted to finish the job by Oct. 1, the beginning of its fiscal year.

Lauer established a nine-man reorganization group made up of his top brass. General outlines of what should be done were immediately laid out. On July 2, the committee had its first



SELAS THERMO-AUTOMATION
BRAZES THE WAY
TO 400% MORE EFFICIENCY
IN ELECTRIC UTENSILS



LARGER CAPACITY APPLIANCES with faster response to thermostatic control can now be built for conventional kitchen outlets with the new Selas method of brazing aluminum—sheathed heating elements directly to aluminum utensils.



RAPID BRAZING CYCLE of only 30 seconds gives high production rates...with semi-skilled labor...gas-air fuel costs of only 1/10 cent per utensil. Brazing machines are semi-automatic (as shown) or fully automatic to meet production requirements.



PRECISION HEAT CONTROL assures rapid, uniform and efficient brazing, without annealing utensil sidewall. Solid metal path for optimum utensil heat flow is evident in section view of utensil-bottom. Stud for mounting thermostat element is brazed simultaneously.



400% MORE EFFICIENCY is built into Triculator's electric carafe with the new Selas brazing technique...which is also used by other leading appliance manufacturers in producing deep-fat fryers, casseroles, skillets, and roasters. Write for informative article on Utensil Brazing.

Selas Thermo-Automation is the key to improved efficiency wherever you use heat for processing. In the steel, metal-working, chemical, ceramic and virtually every industry, Selas Engineers can design heat processing equipment to help speed production, improve quality and reduce manufacturing costs.



SELAS

CORPORATION OF AMERICA
PHILADELPHIA 34, PA.

Heat Processing Engineers for Industry • Development • Design • Manufacture



Manufacturers of Phillips head and other precision cold headed parts know a good thing when they *see the production records!*

In plants where Keystone "Special Processed" Wire is on the job, output per machine, per man, per hour has increased. Die life, for example, is often more than doubled—which in turn decreases machine down time and labor costs. A higher quality end product with its lower rejection rate helps place the per unit cost on a much more profitable level.

The superior grain flow characteristic of "Special Processed" Wire, together with its structural soundness, give this wire unsurpassed performance on any unusually difficult cold heading job. For further information, contact your Keystone representative or write direct.

Keystone Steel & Wire Company
Peoria 7, Illinois
Industrial Wire Specialists

meeting with a management consultant Willard F. McCormick of Cresap, McCormick & Paget.

At the first session in May, Lauer solved one major problem: He picked his two division managers—R. D. Seiffert, formerly general sales manager, for industrial products; and J. K. Loudon, then assistant to the president, for commercial jobs.

• **Thrashing Out**—But that was only the beginning. Each Friday from July 2 on, the operating men sat down to thrash out job descriptions (including the president's), allocation of products to the two divisions on an elaborate product chart, sales responsibility, personnel selection.

The problems broke down two ways: (1) establishing a new concept of headquarters as an essential staff—advisory and service—organization; (2) rearranging the district management to match.

• **Tough Ones**—Some problems were sticklers. Lauer says, for instance, "The operating men wanted headquarters staff to be just bumps on logs."

Or take accounting. First, it was horizontal, cutting across both divisions. Later, after some haggling, it was decided that all of headquarters would be built to fit the needs of operations. The upshot: Divisional comptrollers are responsible for their everyday work to division or district managers; for systems and procedures, to headquarters.

• **Field Setup**—In the field, the top district jobs were the biggest problem. York could have gone two ways. Traditionally, there was a Mr. York in each of the eight districts. He was responsible both for industrial and commercial sales—thus had contract work to oversee plus a distributor and dealer organization for the smaller units.

There's something to be said for that—an outsider knows exactly where he can go to get action.

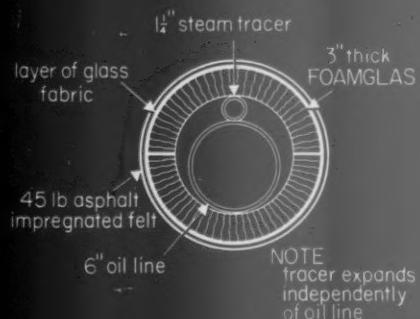
Unfortunately, the dual-role bottleneck was worst in the field.

The district managers were raised on the industrial side, but since the ratio of expenses to sales was much better on commercial business, they tended to push that. Industrial business suffered. Sales call reports showed it—once York could expect 50% return on its contract bidding, but that slipped to 31% or 32%.

Now York's setup provides for two top field men—with the same address—in each district. They have their own staffs, report to their division managers.

Today, commercial and industrial districts coincide. Eventually that may change. Commercial Div. may need 15 districts.

• **National Accounts**—By the end of July, Lauer and his group were down to specific operating problems. Who, for example, handles certified national



Con Edison engineers report:

"We chose FOAMGLAS for underground pipe insulation because it stays dry!"

Consolidated Edison Company's engineers are using waterproof FOAMGLAS to insulate underground heated fuel oil lines at their Astoria, N.Y., Generating Plant. They report: "In this underground installation, our first concern was to get an insulation which would resist moisture and give consistent insulating results under damp conditions. We chose FOAMGLAS because of its moisture resistant qualities."

Con Edison's engineers continue: "Our choice of FOAMGLAS involved maintenance considerations, too. Replacing or servicing insulation in our underground installation would involve considerable

expense. We feel that FOAMGLAS will help us hold maintenance expense to a minimum."

It makes sense . . . if Con Edison can achieve such benefits from FOAMGLAS under difficult operating conditions, you can profit by using this unique, cellular glass insulation. FOAMGLAS laughs at the moisture that cuts efficiency of other insulations . . . and is fireproof and acid-proof, too.

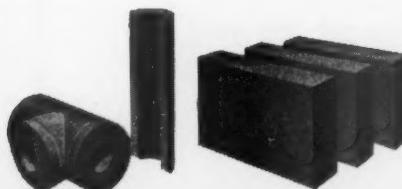
See our catalog in Sweet's Catalog Files . . . or send today for your sample and our booklets describing the use of cellular, *stay-dry* FOAMGLAS to insulate piping, tanks, and other equipment.



PITTSBURGH CORNING CORPORATION
Dept. F-114, One Gateway Center • Pittsburgh 22, Pa.

FOAMGLAS®

the cellular, stay-dry insulation



Pittsburgh Corning
also makes
PC Glass Blocks



Get plenty of copies... quickly, cheaply, with Ozalid!

An Ozalid machine in your office makes extra copies quickly available, at very low cost... speeds the distribution of statements, correspondence, reports, hand-written notes, drawings and plans.

Ozalid saves time now wasted in tedious retyping and transcribing by hand... ends errors, proofreading, corrections. A letter size sheet can be copied in less than a minute, for less than two cents!

THE OZALID process reproduces anything typed, printed, written, or drawn on translucent paper, cloth, or film. Reproduction is instant on chemically coated Ozalid stock—without negatives, darkrooms, stencils, inks. The copies are accurate, clear, delivered dry, ready for use. Ozalid machines can be operated by anyone.

Ask the nearest Ozalid distributor (*see phone book*) for a demonstration. Or write to 76 Ozaway, Johnson City, New York.

OZALID—A Division of General Aniline & Film Corporation... *From Research to Reality.*
In Canada, Hughes Owens Company, Ltd., Montreal.

OZAMATIC (above) is a table model, moderately priced, handles materials up to 16 inches wide, any length, makes up to 1000 copies an hour.

BAMBINO (right) is the smallest, fastest, low-priced office copying machine; will make 200 copies an hour, of materials up to nine inches in width, for less than two cents a copy.

OZALID



accounts—customers with 50 or more separate locations?

York wanted to keep these national accounts under headquarters control, but whose? Commercial business is handled through distributors. Did that mean Industrial would have to handle all national accounts?

The decision was to hand responsibility for each account to the division that dominated that particular one. That meant that the Commercial Div. manager couldn't turn responsibility for nailing a job over to his distributors.

- Transfers—Internally, there was the problem of exchange of products from one division to another. Some products are used for both kinds of jobs and go through either marketing channels. Would these interdivisional transfers be made at cost? If not, would the manufacturing or selling division get credit for the sale?

York looked at 12 companies' practices, found all somewhat different. Its solution: The selling division will get full profit; the manufacturing division will bill the other division at standard factory costs, plus an allocation of general and administrative expenses.

- Ahead—By Sept. 24, York's new set-up was in shape to be charted, its job descriptions put into formal language, and the president's presentation prepared for 75 key men.

The process isn't finished by any means, though. Procedures will take a year to work out.

The three-month transitional period will be over Jan. 1. The Friday meetings with the consultant will start again. They'll tackle three main jobs:

- Commercial Div. distribution will be studied to see if it fits the times.
- Industrial districts may be put on a profit-and-loss basis to allow comparisons between them.
- York wants an inventory of its people, to make certain it has depth in every spot.

MANAGEMENT BRIEFS

Ford Motor Co. and its employees contributed \$1.9-million to Detroit's community chest. The company gave \$500,000, the employees the rest.

Bohn Aluminum & Brass has bought Reo Motors. Reo's directors had tentatively accepted a \$16.5-million offer from Henney Motor Co., but the deal never got final approval.

Small business management will be the subject of a three-day seminar starting in New York City Nov. 30, sponsored by Eastern Brass & Copper. Among the speakers: Wendell Barnes, head of the Small Business Administration.

or more
national
control,
siness is
Did that
o handle

responsi-
division
lar one.
cial Div.
bility for
itors.

was the
cts from
ne prod-
jobs and
channels.
transfers
ould the
ision get

es' prac-
tent. It
will get
division
standard
a of gen-
ses.
new set-
, its job
language,
ion pre-

by any
ll take a

l period
y meet-
rt again.

dtribution
e times.
be put
ow com-

y of its
depth in

ees con-
s com-
gave
t.

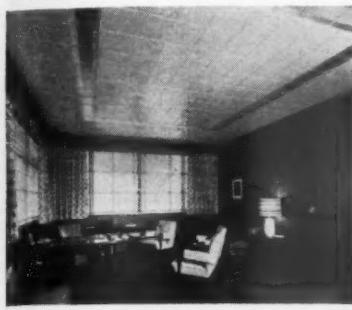
bought
l tenta-
a offer
the deal

be the
starting
sponsored
ong the
of the

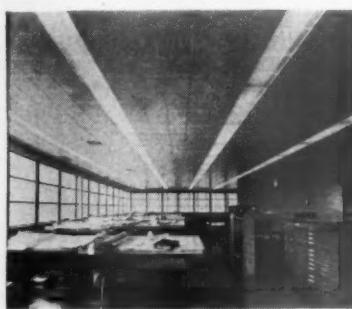
0, 1954



CORRIDORS are kept comfortably quiet by ceilings of Armstrong Arrestone in the offices of Vandercook & Sons, Inc., Chicago printing equipment manufacturer.



PRESIDENT'S OFFICE gains quiet distinction from attractive Arrestone. Recessed lighting is easy to install and maintain with this metal-pan acoustical ceiling.



DRAFTING ROOM noise problems were solved by a sound-muffling Arrestone ceiling. Armstrong Arrestone has high light reflectivity, reduces annoying glare.

SOUND CONDITIONING



RESEARCH LABORATORY, where presses and other printing equipment are operated, is effectively quieted by an acoustical ceiling of low-cost, easy-to-clean Armstrong CushionTone.



PRIVATE OFFICES have hard-surface cinder block walls. The Arrestone acoustical ceilings prevent possible build-up of high noise levels, promote undisturbed quiet.



GENERAL OFFICES at Vandercook & Sons, Inc. are also fully sound conditioned with Armstrong Arrestone, which absorbs up to 85% of the noise that strikes its surface.

Workshop and Office Live Quietly Together

In the Chicago offices of Vandercook & Sons, Inc., working models of their presses and other printing equipment are operated in a Research Laboratory adjacent to busy office areas. Although the hard-surfaced cinder block wall construction reflects much of this sound, there is no noise problem, no disruption of office routine.

Two Armstrong acoustical ceiling materials—CushionTone and Arrestone—soak up the clatter of printing equipment and office noise before it reaches disturbing levels.

In the Research Laboratory, a ceiling of Armstrong CushionTone® keeps noise under control at all times. This

perforated wood fiber material is high in efficiency, low in cost, and can be installed economically in both new construction and remodeling. CushionTone's white paint finish is easily cleaned, stays new looking for years.

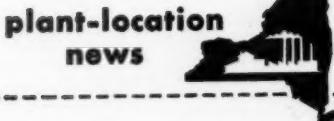
All other company areas—from general offices to president's office—are sound conditioned with Armstrong Arrestone®, a perforated metal-pan material. Arrestone absorbs as much as 85% of the noise that strikes it and can be washed or repainted as often as desired without losing its efficiency. Installed by mechanical suspension, Arrestone units can be easily removed when necessary to repair concealed

piping, wiring, or ducts.

Get full details on CushionTone, Arrestone, and the entire Armstrong Line of acoustical materials from your Armstrong acoustical contractor. He'll be glad to give you a job estimate. For the free booklet, "How to Select an Acoustical Material," write Armstrong Cork Company, 4211 Indian Road, Lancaster, Pennsylvania.

Armstrong
ACOUSTICAL
MATERIALS

CushionTone® Travertone® Arrestone® Corkoustic®



Need facts on buildings or sites?

Here's some plain talk on a rather tricky subject—industrial real estate. Our Industrial Location Service doesn't sell property, but we can help you with many of the problems involved in locating the right plant, or plant site, for your company. What we do is supply confidential data to suit your needs on available sites or buildings anywhere in New York State. This comprehensive information is free of charge and, even more important, free of "boosterism"!

We never try to unload real estate just because it's available. Businessmen simply don't go for that kind of promotion. Besides, the aim of New York State's ILS is to find only the best locations for industry. We want companies who'll stay here for years to come. They'll do that only if the location is the best. That's why we supply unbiased data right from the beginning.

We aim to please: with facts

That's the kind of thinking behind the ILS information service. The way we look at it, real property is only one of many considerations. ILS experts never recommend a site without sifting and analyzing all location factors in the light of your particular requirements. And they'll never withhold unfavorable information.

Find what you want here

Let's get down to cases, and see what kind of detailed information ILS offers:

For suitable buildings, we'll give information on price and financing, describe the type and condition of the structure and explain the heating or cooling systems. You'll also learn about electric installations, sprinklers, floor-load capacities, and facilities for handling sewage and other waste. Water sources, rail sidings, loading docks—any detail you wish, plus photos and plans, can be supplied in these reports.

If no suitable building exists, we'll help you arrange to have one built to your specifications. At the same time we'll help you secure financing at an annual cost you can afford.

You'll like the way we collect this information. It's put together without divulging your identity, so there's never the danger of prices being jacked up before you're ready to make a final choice.

Other free plant-site services

Buildings or sites won't be your only concern when you're looking for a new plant location. But no matter what factors are involved, ILS can be of help. Free reports are available on transportation, markets, raw materials, labor, water, and local laws and regulations—to mention just a few.

Our booklet called "Industrial Location Services" shows how you can put this valuable plant-location data to work. To get your free copy, just drop me a card, care of the New York State Department of Commerce, Room 705, 112 State Street, Albany 7, New York.


Ronald B. Peterson
Director, Industrial Location Service



PAUL LITCHFIELD'S new book tells what part he played in the . . .

Rise of an Industrial Giant

Industrial Voyage is more than the autobiography of a man. It is also the life story of Goodyear Tire & Rubber, the company Litchfield has headed for more than 25 years.

Paul W. Litchfield, of Goodyear Tire & Rubber Co., calls himself an "industrial lieutenant"—a rather insignificant rank for a man who headed production for the rubber giant from 1900 to 1926 and has been president or chairman of the board ever since.

In his autobiography, *Industrial Voyage* (Doubleday, \$4.50), Litchfield explains the apparent incongruity:

"A lieutenant . . . has a two-way responsibility, up and down. Management has the same dual responsibility in business, to the stockholders who own the property, and to the men who work in it . . . we are a link between capital and labor."

• **Significance**—*Industrial Voyage* is a significant contribution for two reasons. First, it's a businessman's life story, rather than the usual recitation of company history. Second, it's the story of the dynamic rise of one of our giant industries, told from the standpoint of a professional manager.

The separation of ownership from management and the rise of the professional manager, the industrial lieutenant, has been the dominant theme in business throughout this century; and few men are more qualified to talk

about this new way of things than is Paul Litchfield.

Litchfield, in a surprising number of ways, is typical of the leaders who ran industry from 1900 through World War II. He grew, as a vendor to Detroit, with the auto industry. He thrived on the two great discoveries: mass production and mass marketing. He was a "production man," not one of the big salesmen or financiers. He was a business radical in 1910, and a political conservative in 1950. Like so many of his fellow industrialists who produce for the mass market, he takes a far brighter view of the social revolution than of the rise of big government.

• **New England Bred**—Litchfield's beginnings were poetically American. In his own words, "I was born in Boston of Maine parentage, on July 26, 1875, grew up in a typical New England environment of thrift and hard work, simple pleasures, ships and sailing men, the Unitarian Church, Longfellow and Whittier, Thoreau and John Quincy Adams, Boston baked beans cooked with molasses, and pie for breakfast."

At 17, however, he did something atypical for a Boston-Maine boy. Instead of matriculating at Harvard or



Why **RCA** uses
PLASKON® Alkyd
in its first TV
color tube!

Molded by Mechanical Institute
Boonton, New Jersey

When RCA electronic engineers designed their first TV color tube for mass production, they discovered the need for a material with special properties to be used for the tube base molding. Arc resistance and superior dielectric strength, as well as resistance to heat and humidity, are essential qualities in this critical component. In their search for the best suited material, RCA investigated mineral filled PLASKON Alkyd and discovered that this material offers all of these features . . . and in addition, it affords an extremely high rate of

production due to its ready moldability. The choice was an obvious one . . . PLASKON Alkyd because of its favorable electrical characteristics and possible production economies.

More and more nationally known manufacturers, in their search for better suited materials, are turning to PLASKON Plastics and Resins. Continued up-to-the-minute research in Barrett Laboratories has given PLASKON Products a position of leadership in electronics as well as in numerous other fields where improved plastics are needed.

For full information on what PLASKON Products can do for you, write or call your nearest Plaskon Man.



For further information on PLASKON Plastics and Resins, address BARRETT DIVISION, Allied Chemical & Dye Corporation, 40 Rector Street, New York 6, N.Y.
Hanover 2-7300





Blank Billboards DON'T SELL!

**UTILIZE
CONTAINER
SPACE FOR
ADVERTISING!**

STONE's design and merchandising services can help you tell your product story in color with **Multitone***. Have this effective additional selling power all the way through distribution! Packaging revaluation can produce enough savings to offset the slight cost of blanketing your cartons with color and printing . . . a potent new merchandising medium.

Revalue your present shipping container. Write for STONE's free Evaluation Check List.

*Exclusive registered process.



STONE CONTAINER CORPORATION

Dpt. B-12 • 4200 W. 42nd Pl. • Chicago 32, Ill.

OTHER PLANTS and MILLS: Chicago, Ill.; Philadelphia, Pa.; Franklin, Ohio; Coshocton, Ohio; Pittsburgh, Pa.; Mansfield, Ohio; Mobile, Ala.

SALES OFFICES: New York; Philadelphia; Pittsburgh; Allentown, Pa.; Lancaster, Pa.; Baltimore; Wilmington, Del.; Akron; Cleveland; Columbus; Toledo; Lima, Ohio; Mansfield, Ohio; Sebring, Ohio; Kenosha; Chicago; Joliet; Grand Rapids.

Bowdoin, he went to Massachusetts Institute of Technology to enroll in the new course in chemical engineering. MIT and engineering proved to be a good choice, not only for Litchfield but for three of his contemporaries: General Motor's Alfred P. Sloan, class of '95; General Electric's Gerard Swope, class of '95; and du Pont's Irene du Pont, class of '97.

• **Career by Default**—The greenhorn engineer graduated into the 1896 depression, and spent six months pounding the pavements. At last, admittedly by default, he chose the rubber industry. The only thing he liked about the idea was that it was manufacturing. "I did not want to grow something, sell something, or transport it, I wanted to make something," he says.

After working on the East Coast for four years, he was offered the job of production superintendent at Frank Seiberling's Goodyear plant in Akron. He signed a two-year contract at \$2,500 a year.

• **Squeeze Play**—Litchfield was reluctant to leave New England, but he sensed it had seen its best days. "New England," he writes, "might have continued to dominate the manufacturing field indefinitely . . . if it had retained the daring and venturesomeness which had carried it to the top. Success breeds caution. The man with much to lose will hesitate, play safe. . . ."

There was no playing safe in the sprouting rubber center of Akron. Goodyear, only a couple of years old, was shadowed by the veterans—B. F. Goodrich, Diamond, U. S. Rubber, International Vehicle & Tire, and Fisk. Virtually all the tire market was in carriages and bicycles; there were only 4,192 automobiles built in the country in 1900. All tires were pretty much the same: That is, they had a round cross-section and were closer to the size of today's bicycle tire than the modern auto shoe.

The fledgling company bumped its head wherever it turned. Non-auto tires, where most of the market was, were tied up in patents, against whose restrictions Goodyear kept fighting. But in auto tires, the big companies had organized an association of license holders and divided the business between them. Goodrich and Diamond (soon merged) got 55%; U. S. Rubber was allocated 30%; Goodyear had to live on 1.75%.

• **Foothold**—Such harnessing led Goodyear to develop the straight side auto tire, which soon became standard throughout the industry and deflated the power of the license holders association. As Litchfield says, "Now we had something. All we needed was a market."

Toward the end of the first decade, the auto industry—and Goodyear right

with it—began to grow fast. Goodyear's sales were \$2.2-million in 1908, \$9.6-million in 1910, \$25.2-million in 1912. By the time the U.S. entered World War I, Goodyear was past the \$100-million mark and was leading the industry in sales.

• **Setback**—The big shocker to the auto industry and its satellites came in the 1921 crash. This depression may have been forgotten in some places, but not in Detroit and Akron. W. C. Durant resigned from General Motors, which he had built up, and the du Ponts—the principal stockholders—came in for the resuscitation job. Frank Seiberling—like Henry Ford, distrustful of Wall Street and New York bankers—had to go to them for help. He lost control of the company, left it with the bankers, and eventually started Seiberling Rubber Co.

The bankers moved several of their own men into Goodyear, and as Litchfield says, "it was rugged going for a long time." Many Goodyear executives followed Seiberling out the door; others were shown the door. Finally, in 1926, the stockholders regained control and Litchfield became president.

• **Progressive**—Litchfield likes to recall that he was once called a Socialist having radical ideas. Considering pre-World War I opinion, it's understandable why. He installed the eight-hour day before World War I, and he gave vacations to factory workers with five years service. In 1916, he put in a pension plan. The year before he had given away \$100,000, a quarter of his newly acquired personal fortune, to Goodyear workers. Litchfield says his gains had been made by Goodyear stockholders; he figured workers had a right to a share of that.

On unionism, Litchfield has the divided mind you might expect him to have. His pet project was what amounted to a company union: the Goodyear Industrial Assembly. The assembly was a body elected from and by the rank and file to handle grievances, collective bargaining. Litchfield feels the idea would have spread except for the rise of "the new unionism in the 1930s" and the Wagner Act, which banned company-supported unions.

• **Hedge**—Surprisingly, Litchfield makes only one indirect reference to the famous six-hour day that the industry has had in Akron since the 1930s. He says that at one time he believed an equitable system of profit sharing could be set up for all employees, but today, differentials between the contributions of various plants, the variance between individuals, and high-wage, short-day production in Akron would probably make such a system impossible.

But Litchfield is one of the first to recognize the payoff for industry in high

lyear's
\$9.6
1912.
World
\$100-
he in

e auto
in the
y have
ut not
Durant
which
Ponts-
in for
berling
Wall
had to
trol of
ankers,
Rub-

f their
Litch-
ng for
ar ex-
ut the
door.
ers re-
became

o recall
st hav-
g pre-
erstand-
ight-hour
e gave
th five
t in a
he had
of his
one, to
ays his
oodweav-
ers had

the di-
him to
what
on: the
. The
om and
e griev-
tchfield
l except
ism in
, which
ons.
d makes
to the
ndustry
30s. He
eved an
g could
t today,
ibutions
between
hort-day
probably

first to
in high
20, 1954



TURNING THE DRUM of a truck-mounted concrete mixer is a rugged job for any transmission. To eliminate frequent and costly transmission failures, here's . . .

How we licked "transmission torture"

Frequent starts, sudden stops and quick reversals of the drum while mixing a 37,000-pound load of concrete in truck mixers is a well-known cause of frustrating and costly drum transmission failures.

The problem was eliminated in Worthington truck mixers by unique oil-immersed transmissions. Out of hundreds of these mixers now in daily service across the country, not a single transmission repair has ever been reported. It's just one of many improvements in the new

Worthington truck mixers.

As most management men know, however, this is only one of the long series of key contributions Worthington has brought to U.S. industry. It's a growing list that includes construction machinery of all types, pumps, compressors, engines, air conditioning and mechanical power transmission equipment. They've all won their spurs the hard way — on the job.

Worthington Corporation, Section 4.15, Harrison, N.J.

4.15

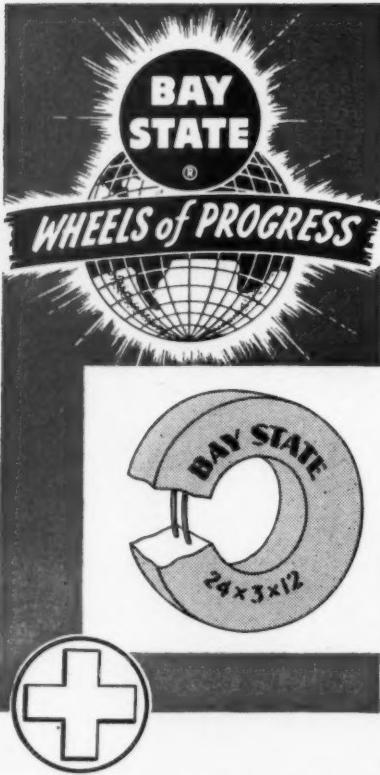
SEE the Worthington Cor-
poration Exhibit in New
York City. A lively, informa-
tive display of product de-
velopments for industry,
business and the home. Park
Avenue and 41st Street.

WORTHINGTON



THE SIGN OF VALUE AROUND THE WORLD

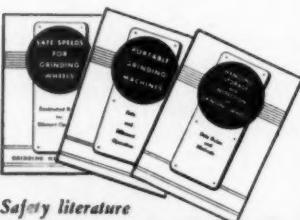
AIR CONDITIONING AND REFRIGERATION • COMPRESSORS • CONSTRUCTION EQUIPMENT • ENGINES • DEAERATORS • INDUSTRIAL MIXERS
LIQUID METERS • MECHANICAL POWER TRANSMISSION • PUMPS • STEAM CONDENSERS • STEAM-JET EJECTORS • STEAM TURBINES • WELDING POSITIONERS



SAFETY FIRST

GRINDING WHEEL
SAFETY has felt the
impact of BAY STATE
progress since 1922.

A pioneer in the skillful
use of reinforcing fibers
and steel, to make
abrasive products
stronger and safer, BAY
STATE is a leading
supplier to American
industry.



Safety literature
available on all phases of Grinding.

BAY STATE ABRASIVE PRODUCTS CO.
Westboro, Mass., U.S.A.

Branch Offices and Warehouses:
Chicago, Cleveland, Detroit, Pittsburgh
Distributors: All Principal Cities
In Canada: Bay State Abrasive Products Co.
(Canada) Ltd., Brantford, Ont.

wages. He says: "The employee became a customer, for his own and everyone else's goods. Industry uncovered a wealth of potential customers under its own roof."

- **Training Replacements**—Management development has always ranked high in Litchfield's thinking. Some of the most interesting sections of the book explain how he spotted potential executives and why he promoted them. One of his babies was the Flying Squadron, a training group made up of young engineers and promising men from the plant. The Squadron, as he calls it, trained men to do every production job in the plant, so that gaps could be closed in a hurry and the company would be guaranteed a continuous supply of able executives.

- **Out of Balance**—Industrial Voyage shows Litchfield to be one of the promoters of the industrial transformation •

and of the technology, mass production, high wages, and mass market that have made it possible. But it also shows him to resent industry's loss of control over its own destiny and the relative gains made by the federal government and the national union groups. He feels that the economy and labor and management were in balance from 1910 to 1930, but that the pendulum swung too far to the left. He sees economic depression as a human failing, not a fault of the free enterprise system, and he believes it can be worked out through normal, not artificial, processes.

As so many successful men before him have done, Litchfield believes that the atmosphere in which he worked and won and the ideas, and business creeds he followed must be the proper course today—just as they were yesterday.

THE MANAGEMENT PATTERN

A Business Memoir That Says Something

INDUSTRIAL VOYAGE, the autobiography of Paul W. Litchfield, Goodyear Tire & Rubber's grand old man (page 48) should change the minds of at least some skeptics who hold that business biography is by nature dull stuff. They may not agree with Litchfield's theories of political economics, but they will agree that the author has told his own—and Goodyear's—story with a degree of candor that is refreshing when compared with the usual business history.

Litchfield's book proves that a readable business memoir can be written. It should encourage other retiring industrialists to try their hand at it.

HERE HAS NEVER been enough good business history, written from the inside. What there has been is a succession of books of this ilk: The Iron Horse Matures—the story of the Umpty Ump Locomotive Works. A professional writer is hired to slick up and romanticize the most ordinary business affairs. Failures are glossed over. Leaders, able or not, are sanctified. Labor is put on a pedestal. Strikes aren't mentioned. The book is fat, larded with photographs, and costs \$6. No one buys it. Why should they?

INDUSTRIAL VOYAGE may not become a best seller, but it should sell—for two reasons.

First, Litchfield writes with rea-

sonable frankness about such things as market dividing and the personnel shake-up that followed the 1921 crash.

Second, he argues at length against big government and big unions, and gives his views on the causes and cures of depressions. They are the views of the conservative. A lot of people will like what he says—and a lot won't.

OUTSIDE of the political area, readers may quarrel with another aspect of the book. Litchfield chooses to ignore Akron's most touchy subject, the six-hour day. This development of the depression years has too much significance to be left out.

Except for the short day, however, Litchfield has waded into several controversial subjects, and has entered his views on the record. He's to be commended for doing so. Fear of getting involved in factional issues has kept many a business leader from going on the public record. The unfortunate result is a lack of original source material.

Industrial Voyage covers an historic half-century in industry. Much has been written about this period by people outside industry, but as every historian knows, there's no substitute for basic documents and firsthand accounts and opinions. These can come only from the businessman himself.

product
et that
o shows
control
relative
ment
s. He
or and
from
dulum
es eco-
failing,
se sys-
worked
l, proc-

before
es that
worked
business
proper
yester-

29
n-
1
h
g
e.
t
4,
r
d
n
0
5



What happens when businessmen are too rushed?

YOU KNOW the obvious things, of course. The piled-up desk, the decisions hanging fire, the appointments cancelled, the people you can't see. It's a picture that's all too familiar in most business offices. But the really serious part of it is the way an important matter can get lost in the shuffle. A matter, for example, that could mean the end of your business.

If you're perpetually rushed, the chances are you never really have time to check and see whether your accounts receivable and other business records are kept in a really trustworthy safe, or a potential "incinerator." There are thousands of "unsafe" safes

in use, today. They don't bear the Underwriters' Laboratories, Inc. label. If a fire ever starts, they cremate records. Leave them in ashes.

And what makes it worse is that you can't count on a fireproof building to prevent such a tragedy. These buildings just wall-in fires. Make them hotter.

And even though you can normally count on fire insurance to cover your losses, it probably would not cover them fully, if you lost your records. There's a clause which says: "proof-of-loss must be rendered within 60 days." Could you "render" it without records?

Don't let "being rushed" keep you from protecting yourself! You could lose everything! Out of every 100 firms that lose their records in a fire—43 never reopen. And many of the rest struggle for years to recover.

Check your safe, today. Get a free Mosler FIRE "DANGERater" to determine your exact risk. Then get the protection it calls for. But trust nothing but the best. Mosler is recognized as the leader in protection, styling, value. Check classified telephone directory for the Mosler dealer in your city. See his complete line of Mosler Record Safes. Or mail the coupon for free "DANGERater," now!



FREE! TELLS YOUR RISK!

The FIRE "DANGERater" dials in 30 seconds the answer which may save your business from ruin. Easy to use. Accurate. Authentic. Based on experience with thousands of fires. Figures in over a dozen vital factors about your business. Mail coupon for your free "DANGERater," now. No obligation.

IF IT'S MOSLER . . . IT'S SAFE
The Mosler Safe Company

World's largest builders of safes and bank vaults . . . Mosler built the U. S. Gold Storage Vaults at Fort Knox and the famous bank vaults that withstood the Atomic Bomb at Hiroshima

The Mosler Safe Company, Dept. BW-11
32nd Street and 5th Avenue, New York 1, N.Y.

Please send me (check one or both):
 Free Mosler FIRE "DANGERater."
 Catalog, showing the new series of Mosler Record Safes.

NAME POSITION

FIRM NAME

ADDRESS

CITY ZONE STATE

PRODUCTION

How to Trim Production Costs

- Companies are working hard to turn up ways to save on materials, on processes, on labor.
- Some are old ideas, applied to techniques that have gone unchanged for years. Others are brand-new.
- Either way, the pressure is on, more than ever, for workable ways to preserve profit margins.

"What are you doing to keep costs in line?" BUSINESS WEEK reporters have been putting that question to production chiefs of U. S. companies during the past four weeks.

The answers show a variety of approaches—from routine cutting down on overtime to elaborate companywide work-simplification programs. But just about every plant manager has this to say: "We're trying harder now to cut costs than we've ever tried in the past."

Two main reasons emerge for this intensified approach to cost-cutting:

- Some companies are running into lower sales volume. Here, the treatment is to put a firmer control on overtime, make sure that fringe costs—indirect labor, maintenance labor, etc.—are scaled down along with direct labor costs.

- The squeeze between costs and prices makes cost-cutting more necessary. A company's sales may be holding up, but materials and labor cost more while stiff competition holds the retail price constant.

- Ways to Save—An upstate New York order-book manufacturer is typical. From 1940 to 1950, its prices increased 70%, keeping pace with production costs.

After 1950, however, the market got tighter. The company hasn't dared boost prices since then, though labor and materials cost 28% more today than in 1950.

Within the past year, the company has trimmed costs of such things as inspection—which saved some \$70,000—and has boosted production 25%, with no increase in the labor force, by changing production methods that hadn't been touched for years.

In Boston, a paint manufacturer has been pushing a cost-cutting program for a year and a half, figures that it has saved \$200,000 in that time. To keep every plant informed on what goes on in other parts of the organization, the company publishes an inter-plant idea letter. Also, company engineers have

been checking costs, plant by plant, to spot those that were out of line. They look particularly at the costs of older products that often get overlooked when new product lines are being set up.

A West Coast aircraft manufacturer expects to save \$40,000 this year with a \$22,000 investment. The company operates 120 vehicles in its factory area. It's converting them to operate on propane instead of gasoline. Gains: an 85% saving on oil; overhaul every 10,000 hours instead of every 1,000; a 60% saving on fuel cost.

- Ideas Warmed Over—Many production men admit their cost-cutting ideas are not new to industry, that the company is just now getting around to adopting them. Some seem embarrassed: "Everyone's been using that idea for years."

Possibly, this embarrassment about paring costs a few dollars at a time can be traced to the automobile companies, which have made such dramatic news in recent weeks with their multi-million-dollar cost-cutting programs.

The production head at Pontiac, for example, talks about new machinery that will produce an additional 65,000 cars with the same labor force (BW-Nov. 6 '54, p112). But auto companies are looking for simple cost-savers too. One plans to install all heaters at the factory this year. It expects to save \$10 a car.

- Containers—A number of companies are coming up with new packaging techniques to get costs down. Several tire manufacturers are receiving their supplies of carbon black in polyethylene bags.

Instead of having to dump the carbon black out of a bag and into the chemical mix, they throw in bag and all, save handling time.

A manufacturer of motion picture products—cameras, film, projectors—has switched in the past year from wooden boxes to corrugated shipping cases. The company estimates that it has saved

\$160,000, principally in the lower cost of the packaging material. Some 15 studies of this type have been made in the company this year, with total savings of more than \$300,000.

- Planning—But the most significant productivity increases seem to be coming during production itself—or in the planning of a product before it gets into production. One of the nation's big copper producers has set up an industrial engineering department within every division of the company. Its chief job is to find cost-cutting methods. One result: Copper recovery has been boosted from 800 tons a day to 1,100 tons a day.

An aircraft manufacturer in the East is encouraging its tool engineers to kibitz while the plane designers are getting their ideas down on paper. The manufacturer hopes that the tool engineer's occasional glimpse over the designer's shoulder will yield a part that is easier to produce and, therefore, lower in cost.

- Materials—A manufacturer of many kinds of measurement instruments—thermometers, pressure gauges—is making a plant-wide study of all metal parts that go into its products. The aim: to find which parts can be produced with materials that are cheaper or easier to machine.

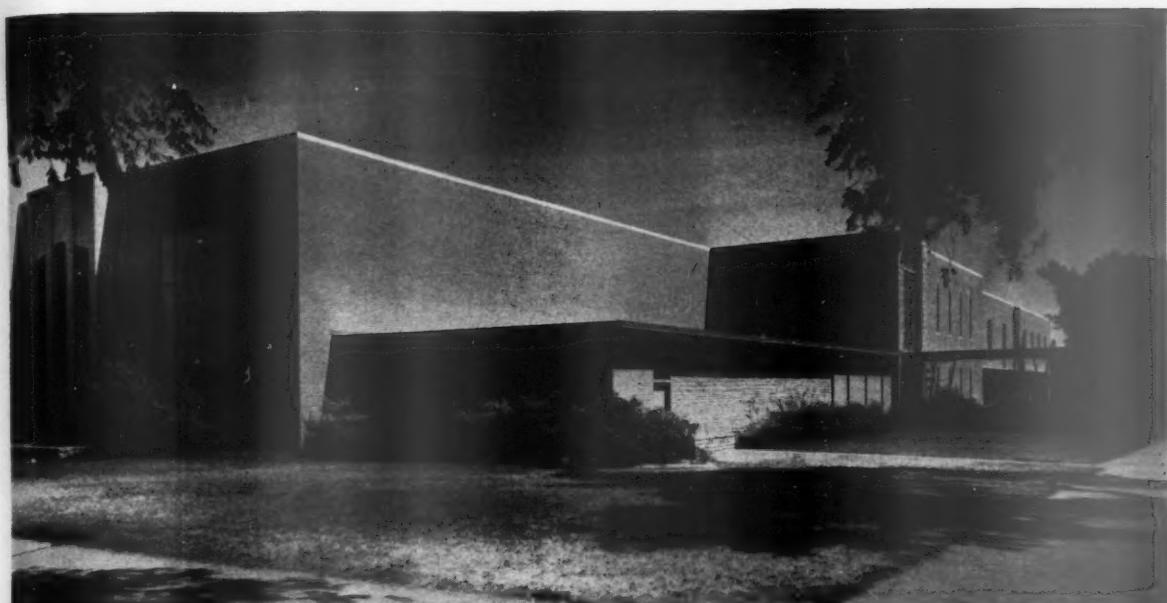
Leaded steel, for example, is replacing carbon steel in some equipment. The manufacturer has switched to it because it machines faster; 140 parts can be turned out in an hour, where carbon steel parts could be produced no faster than 90 per hour. Leaded steel costs more, but the manufacturer finds that he saves 10% in the over-all cost of the part.

The same manufacturer had used steel screws with a plated finish on one of its commercial products. These were as much decorative as functional, cost 15¢ each to produce. Now, the manufacturer is using plastic instead. These stand up as well as the steel screws, cost only 4¢ apiece, save the manufacturer \$4,400 a year.

- Transportation—The U. S. Steel Corp. said last week that it was trimming the cost of its tubular steel by routing more of the tube by water instead of rail.

Since the first of this month, Big Steel has been using more river barges to transport tube to the oil fields of the Southwest.

By barge, the shipping charges on a 500-ton lot comes to just under \$9 a



St. Luke's Methodist Church, Oklahoma City, Okla., is strikingly modern and uses American Blower equipment. Coston & Frankfurt, architects and engineers. Mid-Continent Mechanical Contractors, Inc., air-conditioning contractors.

American Blower helps write happy ending to St. Luke's air-conditioning problem



American Blower Exhaust Fan on roof gets rid of stale air from attic of St. Luke's main auditorium. Similar American Blower Fans on roof handle air from church cafeteria and rest rooms.



American Blower Air Conditioner on second floor services recreation room. For full data on American Blower equipment, contact your local American Blower representative, or write us direct.

Ultra-modern St. Luke's is one of the most popular churches in Oklahoma City—but its very popularity caused a revamping of its air-conditioning system!

St. Luke's Methodist Church, Oklahoma City, Okla., had a problem. Long operational schedules overburdened the original air-conditioning system. To keep apace of growing church needs, the entire setup had to be revamped. And, as is more and more the case, American Blower equipment was selected for the job.

American Blower Air Conditioners — plus Cooling Coils, Heating and Ventilating Units, Supply and Exhaust Fans — were installed to furnish clean, fresh air for St. Luke's 20,000 sq. ft. of floor space: auditorium, sanctuary, study rooms, game rooms, kitchens and hallways . . . giving more than enough air-conditioning capacity for present and future requirements.

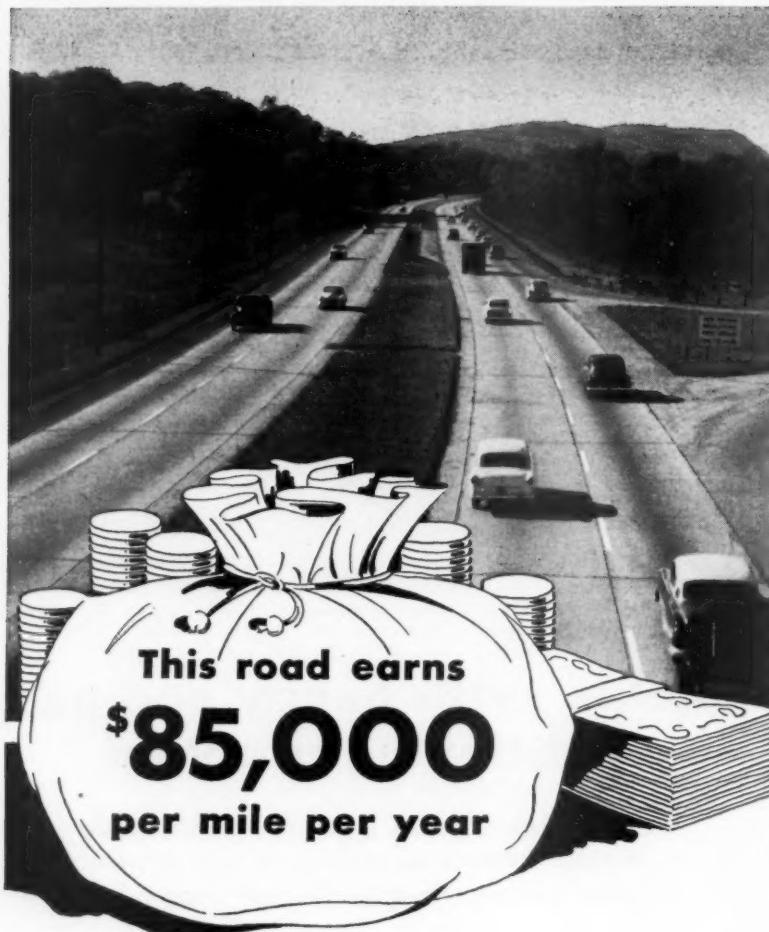
Do you have an air-conditioning or air-handling problem? Give your nearest American Blower or Canadian Sirocco Branch Office a call, today. American Blower engineers have a complete knowledge of the air cycle, and can supply equipment to meet the special problems of many industries.

**AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO**
Division of American Radiator & Standard Sanitary Corporation

AMERICAN BLOWER



Serving home and industry: AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS & WALL TILE • DETROIT CONTROLS • KEWANEE BOILERS • ROSS EXCHANGERS • SUNBEAM AIR CONDITIONERS



A road earning money? Absolutely—in the form of gas taxes and license fees you pay to drive on it. The more vehicle miles of traffic a road handles the more money it earns.

This concrete road is U.S. 5 south of Hartford, Conn. The section shown carries a daily average of 40,000 vehicles.

The number of vehicles traveling this road per day	40,000
Times the average vehicle tax per mile in Conn.	\$.0058
Equals this road's earnings per day per mile	\$232.00
Times the number of days in a year	365
Equals the annual earnings of this road per mile	\$84,680
Minus the annual cost to build and maintain such a road during its expected lifetime	\$10,000
Equals the annual net profit this road earns per mile	\$74,680

Concrete roads are the biggest money-makers because they attract the most traffic and have the longest life and lowest annual cost. Other pavements often fail to earn their building and maintenance cost. This drain on available funds leaves less and less for new highway construction.

To motorists, who pay for highways, this is an important reason why all main roads should be paved with concrete.

PORLTAND CEMENT ASSOCIATION, 33 W. Grand Ave., Chicago 10, Ill.
A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work

ton for the Pittsburgh-to-Houston haul. By rail, the cost is \$23 a ton. The cost of truck shipment from Houston to the oil field has to be added to that \$9, but U. S. Steel says that the saving is still substantial over the cost of shipment by rail.

Of course, the beneficiary in this routing switch is the tube-purchasing oil company, because it pays the cost of shipping, whether by rail or water. A year ago, some observers in the oil industry say, barge shipments of tube weren't even considered, because the oil companies wanted fast service. They were buying all the tube they could get, regardless of cost.

Now these observers say, the oil companies are becoming cost-conscious. One reason: In the past year, producers of oil industry equipment have been setting up shop near the oil fields—oil companies are getting a first taste of cheap deliveries.

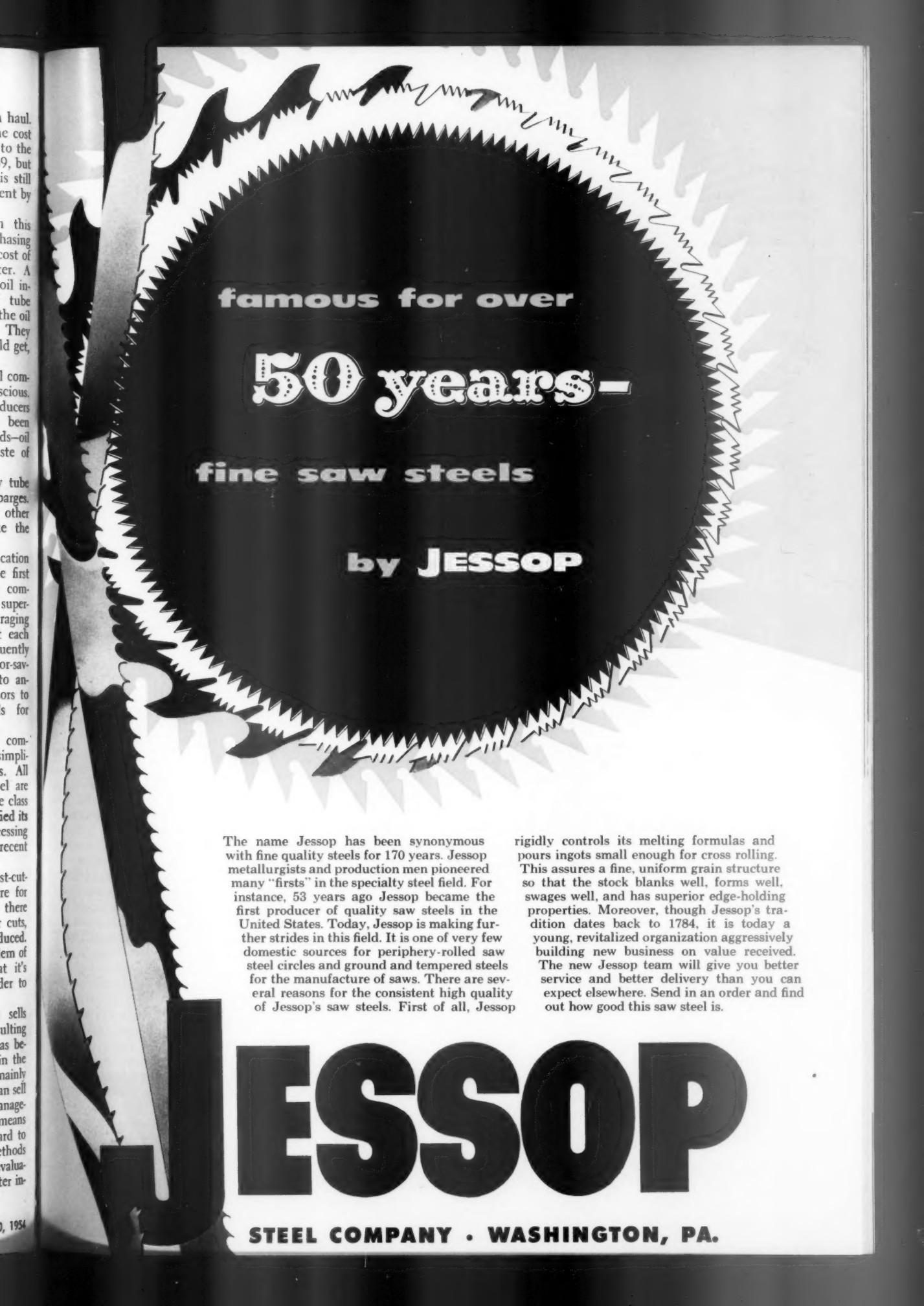
So far, U.S. Steel is the only tube producer to make the switch to barges. But in the next few months, other producers are expected to make the change, too.

- **Saving Labor**—Work-simplification programs are showing up for the first time in many companies. Some companies are setting up forums for supervisors of all departments, encouraging the supervisors to take pokes at each other's operations. This frequently leads to the spread of a good labor-saving idea from one department to another. It also stimulates supervisors to work out labor-saving methods for themselves.

One New England chemical company has a regular 10-week work-simplification course for its supervisors. All personnel at the supervisory level are required to attend the course, one class each week. The plant has intensified its program of simplifying order processing and eliminating paperwork in recent months.

- **Resistance to Change**—But cost-cutting isn't always the easiest chore for industry to take on. Of course, there is the problem of equitable labor cuts, if the labor force must be reduced. Also, there is sometimes the problem of convincing top management that it's necessary to spend money in order to save money.

One industrial engineer who sells services to management on a consulting basis complains: "Management has become cost-conscious to beat hell in the past six months, but it shows up mainly in laying off help. About all you can sell on a consulting basis is what management wants to buy, and that means what it is familiar with. It is hard to get management to accept new methods and to use new tools such as job evaluation, work simplification, and better inventory records."



famous for over

50 years-

fine saw steels

by JESSOP

The name Jessop has been synonymous with fine quality steels for 170 years. Jessop metallurgists and production men pioneered many "firsts" in the specialty steel field. For instance, 53 years ago Jessop became the first producer of quality saw steels in the United States. Today, Jessop is making further strides in this field. It is one of very few domestic sources for periphery-rolled saw steel circles and ground and tempered steels for the manufacture of saws. There are several reasons for the consistent high quality of Jessop's saw steels. First of all, Jessop

rigidly controls its melting formulas and pours ingots small enough for cross rolling. This assures a fine, uniform grain structure so that the stock blanks well, forms well, swages well, and has superior edge-holding properties. Moreover, though Jessop's tradition dates back to 1784, it is today a young, revitalized organization aggressively building new business on value received. The new Jessop team will give you better service and better delivery than you can expect elsewhere. Send in an order and find out how good this saw steel is.

JESSOP

STEEL COMPANY • WASHINGTON, PA.



Salem-Brosius and Hagan Combine To Cut Your Heating Costs

When Salem-Brosius recently purchased the George J. Hagan Company, some of the finest furnace engineering brains in the world were consolidated into a single team to bring you the best in industrial heating at the lowest initial and operating costs.

Take, for example, the massive rotary hearth furnace illustrated here. Salem-Brosius' new combined engineering group has designed almost all of these furnaces—not only in the United States but all over the world. This type of furnace ranges from 5 to 90 feet in diameter, and can be used for a wide variety of metal and metal part heating and heat treating jobs.

The circular shape saves valuable plant

floor space. Fuel efficiency is unparalleled by any other type of furnace. Heating is rapid and uniform. Automaticity of control drastically cuts labor costs. And good design with good construction minimizes maintenance expenses. All of these benefits together spell higher furnace output at lower cost—and greater profit to you, the user.

If your plant modernization or expansion plans call for heating or heat treating furnaces of any kind, furnace charging machines, forging manipulators, hot materials handling equipment, large diameter gas main valves, or other special machinery or furnace equipment, write, wire, or phone Salem-Brosius!

SALEM-BROSIUS, INC.

EXECUTIVE OFFICES: 248 FOURTH AVENUE, PITTSBURGH 22, PA.
In Canada: Salem Engineering Limited, 1525 Bloor Street West • Toronto 9, Ont.

Synthetic Mica on Big Scale

Mycalex Corp. has set up a subsidiary to tackle large-scale production. It will provide better insulators for electrical parts. Its goal: 1,000 ton of mica a year.

Early next January, an industry will spring up in a newly constructed East Caldwell (N.J.) plant. It is one that U.S. electronics companies and the government have been yearning for since World War II. The industry: synthetic mica.

For years, government and industry have known that the U.S. supply of mica—a strategic defense material—could be cut off almost completely in the event of war. More than 90% of it comes from India.

• **Craus**—The problem has always been to find a way to produce mica synthetically, and to do it cheaply enough so it could be sold competitively with the Indian product.

A company that could produce a competitive product would find itself in the midst of a \$30-million market. But getting competitive is tricky business, since the lower grades of Indian mica—mined and shipped by cheap labor—sell for as little as \$1 a pound.

• **Producer**—The company that is going to take a crack at producing synthetic mica on a big scale is Mycalex Corp. of America, one of the biggest producers of mica products in the U.S. Mycalex has plunked down \$500,000 for a new corporate offshoot, Synthetic Mica Corp. Two weeks ago, it broke ground for the East Caldwell plant.

Next year, Mycalex expects its subsidiary to produce 500 tons of synthetic mica. Capacity of the plant in full swing will be 1,000 tons per year, or 10% as much as the U.S. will import this year.

If mica users start buying Mycalex synthetic in preference to natural Indian mica, other companies will doubtless get into the business. But right now, Mycalex seems to have the field pretty much to itself.

• **Pilot Operator**—The only other U.S. company that has shown an active interest in production of synthetic mica is Brush Beryllium Co. of Cleveland. Brush now operates a small pilot unit that turns out some 500 lb. of synthetic a week. But Brush says that it has no immediate plans for building a plant that could produce mica in quantity.

Mycalex and Brush have been dabbling in synthetic mica for a couple of years. Their production units trace back to a government-sponsored pilot plant at Norris, Tenn., which had previously been operated by the Bureau of Mines. Its aim was to produce large sheets of synthetic mica from which small

vacuum tube insulators could be stamped.

In 1953, Mycalex signed a contract with the bureau to take over operation of the Tennessee plant. Within the next year, the plant produced some 100 tons of synthetic.

When the government decided earlier this year to close down its Tennessee operation, Mycalex voted to stay in the synthetic business. At the same time, Brush was winding up a contract with the Office of Naval Research, which had sponsored its initial work.

• **Different Markets**—Now, both companies are operating on a commercial basis, though Brush says that it does not intend to go after the same market that Mycalex will tackle. Brush produces small batches of sintered mica—a powdery substance—which is being tested by vacuum tube manufacturers, radar component makers, and other companies that use mica as an insulator.

Mycalex will, of course, have more mica to sell—and in a greater variety of types. Its new plant will turn out big batches at a time, by means of an electric arc furnace.

• **Production Core**—The furnace will take 25 tons of raw chemicals at a time. At first, these will be used in their purest state, mixed carefully before they're poured into the furnace. This process will increase the initial cost of the mica, but Mycalex figures that later on it can be less fussy about the purity of the raw materials. Its first aim is to find the best mix to produce mica that meets specified performance requirements.

The furnace itself is a steel cylinder about 10 ft. in diameter and 10 ft. high. Two sticks of graphite—about 5 ft. apart inside the cylinder—act as electrodes to create the high temperatures needed in the process.

The electrodes are almost covered with raw chemicals when the process begins. Then a thin layer of graphite is bridged between the electrodes to carry the initial surge of current. Finally, the furnace is filled with mix.

When the power is turned on, about 1 kw. of current moves from one electrode to the other over the graphite layer. Then, as power is increased, the graphite layer is burned away, and the mica mix itself acts as the conductor.

• **Molten Mica**—The high resistance of the mix boosts the temperature within the furnace—high enough to melt the mix in the center, and cause the mix

If you are doing business regularly in Milwaukee and Wisconsin, the Marshall & Ilsley Bank should be your choice.

We offer you close personal attention, complete banking services and facilities—and wide experience and knowledge of business in our state.

In short, we feel we can do an outstanding job for you in filling all your banking needs.



**MARSHALL
& ILSLEY
BANK**

Member Federal Reserve System
Member Federal Deposit Insurance Corporation

MILWAUKEE, I.
WISCONSIN



FACTS
EVERY
SHIPPER
SHOULD
KNOW

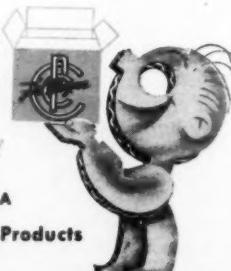
It could happen to your product

Dropped . . . bashed . . . crashed . . . and you can't control those stumbles and slips when your product's on the road. But you can protect against them, minimize shipping hazards with quality-built Fort Wayne corrugated containers specifically designed to take your product all the way in the same good shape it left your plant. Check with Fort Wayne—to cut down damage claims and losses.

Fort Wayne
CORRUGATED PAPER COMPANY

GENERAL OFFICES • FORT WAYNE 1, INDIANA

Corrugated Fibre Boxes • Corrugated Paper Products



" . . . a synthetic part is strong up to about 950F . . . "

MICA starts on p. 59

on the outer surfaces to solidify. This operation takes about 80 hours.

Next, the hot mix is permitted to cool. This takes from a week to 12 days, after which the furnace is swung open. Inside there is a high mound of solid white mica.

The baked mica is wheeled out and workmen break its outer shell. Within the shell, where the furnace heat was most intense, is the most valuable product of the process: mica crystals, $\frac{1}{8}$ -in. thick and up to 16 sq. in. in area.

With additional processing, these crystals can be formed into long sheets, then shipped off in rolls to an electronics company.

The big crystals are valuable, because they are the closest thing to a perfect electrical insulator and are also extremely thin—an important factor in today's tiny vacuum tubes.

The outer shell of mica is also put to work, but in a different form. Mycalex will crush it into powder, then bind it into a solid state, using glass as the binding agent.

- Familiar Ground—This powdering process gets Mycalex back on familiar ground. The company has built its business on production of glass-bonded mica products: base plates for electrical switches, electronic insulators of all kinds.

- Natural vs. Synthetic—The difference between a product made of natural mica and one made of synthetic doesn't really show up unless the finished piece has to work under intense heat. This is where the synthetic stands out.

A natural mica insulator will work well up to about 650F. Then it begins to get soft, loses its structural strength. A synthetic part, on the other hand, is strong up to about 950F. And it could go higher than that, except that the glass bonding begins to break down. Researchers at Mycalex and at Rutgers University's ceramics laboratories, in New Brunswick, N. J., are trying to find new glass bondings that will stand up as well at high temperatures as the mica does.

- New Direction—The move into mica production represents a step toward vertical integration for Mycalex. If its new subsidiary, Synthetic Mica, comes through as successfully as expected, Mycalex—now one of the biggest U.S. markets for imported natural mica—will use more synthetic and less imported mica. And, in a defense emergency, the Mycalex subsidiary would become one of the keys in the nation's defense program.

BUILDER-DEALERS WANTED!

We Are Ready to Franchise an Additional 200 Dealers to Serve a \$20 Billion Market in Which Our Share Has Tripled in Four Years

NATIONAL HOMES CORPORATION, the largest producer of prefabricated houses in the world, and its dealers will build an estimated 2.16% of all the new, single-family, non-farm dwellings constructed in the United States in 1954. They will account for over 40% of all new prefabricated houses. Gross sales for the present calendar year will reach an estimated \$52,000,000.

At our plants in Lafayette, Indiana, and near Elmira, New York, we are now manufacturing houses at the rate of 120 per day. All these houses are sold before they are manufactured. During 1955 we foresee total production—and sales—of 30,000 houses, ranging in price from \$6,000 to \$40,000. For the next calendar year we estimate a sales volume of \$78,000,000.

To do this job, we have the ablest designers and architects in the country. We have developed manufacturing techniques that insure not only lowest prices but significantly better quality than can be achieved by the old, conventional methods of building. We have perfected a delivery system so organized that a house leaves one of our plants every 12 minutes on one of our 240 trailer trucks. We have 551 dealers in 40 states and the District of Columbia.

Our lowest priced house can be comfortably financed by anyone with \$350 in cash and a budget of \$45 a month for housing. Owners who have resold have found a considerable appreciation in value, and financing for new purchasers has been readily available.

In 1947 a wholly owned subsidiary, National Homes Acceptance Corporation was established. Although we prefer to see local banks provide the mortgage money, the Acceptance Corporation today can take every proper mortgage that comes to it from National Homes dealers, and as of June 30, 1954, was servicing over \$130 million in mortgages. All these mortgages are insured by the Federal Housing Administration or the Veterans' Administration, and they are being taken by many of the largest insurance companies and savings banks in the country.

The Homes We Manufacture

The National Homes Corporation designs and produces prefabricated houses in a variety of models and price ranges. We make it a point to supply houses that fit into the framework of the Federal Housing Act and that can be bought for the minimum amount of required cash and monthly payments. We also have a

custom-line that has had wide appeal—houses of sophisticated, modern styling designed for modern living. The quality of all National's houses is the same—prices vary due to differences in styles and sizes.

Our houses are complete homes. We provide plumbing fixtures, lines and water heaters, a furnace with flue, connections and thermostatic control, all wiring and lighting fixtures. Interior and exterior walls are finished in smart, imaginative treatments.

At present we have 31 floor plans of from five to nine rooms, each with many exterior design variations.

When a National Homes house is delivered to a site with a ready foundation, it can be put up in a single day. It can be completely prepared for occupancy by the dealer using local labor in three or four weeks, or less, if necessary.

The materials and construction of our houses have been tested by leading research organizations in the country including the U. S. Forest Products Laboratory and Purdue University's School of Civil Engineering; and have been approved by the Building Officials Conference of America, the Pacific Coast Building Officials Conference and the Southern Building Code Congress. Modern factory manufacturing methods, because of the high quality and precision demanded by the very nature of this process, are an important assurance of the quality of the product. Inspection procedures at the factory are rigid. Our research and development department searches constantly for better materials and techniques.

The Key Part Played by the Dealer

A National Homes dealer must be an able businessman with a high standing in his community. He must be capable of running a substantial enterprise, involving both the economic and social life of his town.

We need businessmen who can see the challenge of this market. Building experience is helpful, but it is not absolutely necessary. We have some excellent dealers who were automobile distributors, for example.

We have dealers whose annual incomes before taxes run as high as \$600,000. Any successful dealer should make at least \$50,000 before taxes.

A dealer must be able to bring no less than \$25,000 of his own capital into the operation. A large percentage of homes today are built on large tracts—not on individual, isolated lots. The home building of the future will be a big business based on the wise development of whole communities. Property must be located, acquired, zoned and developed. The dealer must understand all the problems which arise from operations of this kind and size.

We would like to stress the importance of vision. The building industry in this country—which is the country's largest industry—has never been substantially modernized. Prefabricated mass-production—using parts instead of pieces—has long been recognized as the answer. America has used this answer in every other field—for the production of automobiles, refrigerators, electrical equipment, etc. National Homes is a long way ahead of competition in bringing it to housing on a mass basis.

It must be recognized that dealers today are the spearhead of a housing revolution. They can have all the financial advantages of a pioneer position in the industry, but they must also provide the abilities which are required in a pioneering period.

We are working today at our factories on 24-hour schedules. With our expanded facilities we can produce and sell more houses than our present dealers can erect. We see no insurmountable problems. What FORTUNE calls "the insatiable market for houses" has been barely dented by conventional building. People all over the United States are hungry for sound, quality houses at prices that they can afford to pay. Housing today is a \$20 billion market, larger than the giant automobile market.

We have described the challenge here because we want to attract outstanding people, and we don't want to miss anyone through failure on our part to describe the opportunity in sufficient detail.

All communications should be addressed to Sumner J. Robinson, Vice President for Sales, National Homes Corporation, Lafayette, Indiana. All correspondence and inquiries will be treated in proper confidence.

JAMES R. PRICE, President
NATIONAL HOMES CORPORATION

NATIONAL HOMES CORPORATION
LAFAYETTE, INDIANA • HORSEHEADS, NEW YORK

ONE OUT OF EVERY 48 HOMES BEING BUILT IN AMERICA TODAY IS A NATIONAL

The man from Cunningham & Walsh



THE MAN facing you is Les Heller. He's a copy writer in our advertising agency. Here you see him at Bank of the Manhattan Company, talking to a customer. Les spent a week learning what makes a bank tick—to make

himself a better advertising man.

All our art, copy and account men get out and sell to the public face to face, at least one week a year. The sales experience they get pays off in the copy they write. With interest.

Cunningham & Walsh, Inc., 260 Madison Ave., N.Y. MU 3-4900

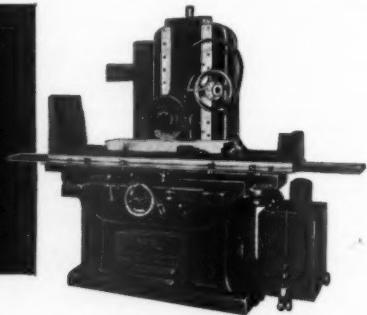
When the need
is for SPEED
and
PRECISION

you need a **GRAND RAPIDS GRINDER**

Here is extra value, extra accuracy, extra high-speed performance. Every Grand Rapids Hydraulic Feed Surface Grinder has a one-piece column and base for vibrationless rigidity and permanent alignment between cross travel ways and upright headways. Both longitudinal table travel and cross feed are hydraulically operated. On the larger machines, the wheel head is powered for rapid vertical travel. The model 55 has longitudinal table speed of 125 fpm!

Parts machined to micrometric tolerances, precision assembled for freedom of action, no play. That's why 6 out of 10 are sold to firms already using Grand Rapids Grinders.

Send for full facts today . . . we'll answer within 24 hours



Please send me the following literature without obligation:

- Surface Grinder Catalog
 Universal Cutter and Tool Grinder Catalog

Attach to Letterhead and Mail to:

GALLMEYER & LIVINGSTON CO.
410 Straight Ave., Grand Rapids, Mich.

More Nickel

Freeport Sulphur Co. and GSA are getting together to boost production by 30-million lb. a year.

Nickel—one of the metal industry's most critical metals—will soon get a boost in output from Freeport Sulphur Co. of New York City, with an assist from the General Services Administration. In a long-term project, Freeport is setting its sights on a plant whose output will hit 30-million lb. of nickel metal and 3-million lb. of cobalt a year.

As a starter, Freeport Sulphur and GSA have made a deal to construct a pilot plant, that would use a new chemical process for reducing nickel ore to metal. Some of the processing has been developed by Chemical Construction Corp., a subsidiary of American Cyanamid Co. GSA has agreed to put up \$6.25-million to finance pilot-plant construction on a site near New Orleans recently purchased by Freeport.

• Operator—Freeport's part in the deal is ore supply and plant operation. The ore will come from a 40-million-ton deposit at Moa Bay on the northeastern coast of Cuba. The company will put 50 tons daily through the pilot-plant processing, without charging the GSA for the ore or treatment.

The purpose of the pilot plant is to collect engineering and cost data on the processing, whose development Freeport has been financing. The process uses acid that removes the metals from the ore in the form of a solution. Afterwards, the nickel and cobalt are removed from the solution as pure metals. The test runs will lay the foundation for a commercial plant, built to meet the nickel standards of government stockpiling and industrial use.

Nicarao Nickel Co., a Freeport subsidiary, is slated to handle the private financing, and eventually, the operation of the commercial plant. Nicarao's plans call for a plant and auxiliary equipment near the ore deposit at Moa Bay, where the ore will be acid leached, upgraded to a concentrate of an intermediate grade, and shipped to the stateside plant for final processing. The commercial plant will take out the nickel and the cobalt separately.

• Big Find—By last year, Freeport mining engineers had already blocked out an estimated 40-million tons of the ore, which contains about 1.35% nickel and around 0.14% cobalt. That makes Moa Bay one of the most important sources of nickel outside Canada's Sudbury basin.

Besides picking up the tab for the pilot plant, GSA has also signed a con-



Anyone can build a bridge...

Given blocks, even Bobby can build a bridge.

But Bobby's bridge doesn't present the problems that full-size bridge building does. He doesn't have to bother about stresses and strains, or future traffic growth. Neither does he have a budget to consider.

It's problems like these that beset today's bridge builder—the engineer. And there are so many more bridges than there used to be! Once, bridges crossed only water—streams, rivers, inlets. Today, bridges are also used to cross over whole towns, cross other highways, cross sharp ravines. Any new highway is apt to have so many bridges that they will account for nearly a third of the highway's cost. To keep the cost of highways down a way has to be found to minimize the cost of the bridges.

And it's the engineer who finds the way to do it. Using new materials and new construction, creating more efficient designs, he has evolved entirely new types of bridges—bridges that are stronger, that carry heavier loads; yet bridges that use fewer materials, cost less to build.

Finding better, faster, less costly ways to do things is the special province of the engineer—the man, who, in large measure, has been the pace-setter of civilization as we know it. Remaining always the individualist and creator, the engineer works with civil authorities, private owner, contractor and financier—and supplies the "how" that paves the way for the *collaboration* that creates "miracles"—super highways, super cities, super factories, super airports, super everything to make our lives ever easier, ever more pleasant, ever more safe.



Gannett Fleming Corddry and Carpenter, Inc.

Harrisburg • Pennsylvania

PITTSBURGH, PHILADELPHIA, DAYTONA BEACH

Engineers

ALONG THE WAY... OF **TWA**

Modern Pegasus...No Myth!

THE "WINGED" HORSE OF TODAY IS FACT...NOT FICTION. HE'S SKYBORNE COMFORTABLY, SAFELY, SWIFTLY VIA TWA'S TRANSATLANTIC SKY MERCHANT FLIGHTS. TRAVEL TIME'S AS IMPORTANT AS TRACK TIME WHEN THOROUGHBREDS MUST MEET RACING SCHEDULES BOTH IN U.S.A. AND OVERSEAS. LEADING

STABLE OWNERS ALSO SHIP BREEDING STOCK THIS EASY WAY.

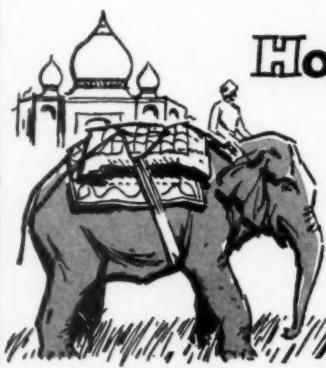
WHETHER YOUR SHIPMENT IS LARGE OR SMALL, TWA GIVES THE SAME CAREFUL, SPEEDY SERVICE. INQUIRE ABOUT SPECIAL COMMODITY RATES FOR YOUR PRODUCT. PHONE TWA TODAY.



2 COAST-TO-COAST

SKY MERCHANT ALL-CARGO ROUND-TRIP FLIGHTS EVERY DAY

(EXCEPT SAT. & SUN.)



HOWDAH PROSPECT?

MAYBE YOU AREN'T SELLING RUMBLE SEATS FOR AN ELEPHANT'S BACK...BUT HUNDREDS OF U.S. MFGRS. DO SHIP ALMOST EVERYTHING DIRECT TO INDIA VIA TWA... ONLY TWA SERVES ALL MAJOR MARKETS IN U.S. AND 21 WORLD TRADING CENTERS OVERSEAS.



All TWA Flights carry Air Mail,
Air Freight and in U.S.A.-Air Express

TWA
TRANS WORLD AIRLINES
U.S.A.-EUROPE-AFRICA-ASIA

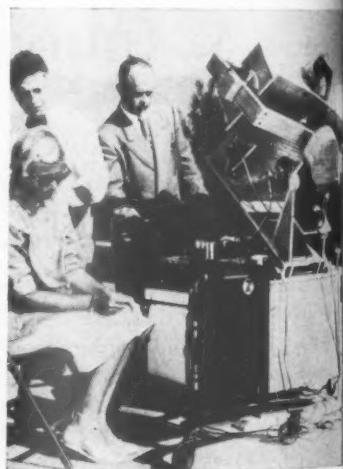


tract to buy nickel and cobalt from commercial plant. The contract provides that GSA can buy—by June, 1956—150-million lb. of nickel, and 15-million lb. of cobalt at prevailing market prices. But the contract really is binding until the end of the pilot program when GSA will decide whether or not to make the purchase.

• Veteran—Freeport Sulphur is an old hand at nickel production, especially in Cuba. During World War II, Freeport's Nicaro Nickel subsidiary designed, built, and operated a big nickel-copper leaching plant for the U.S. at Nicaro, west of Moa Bay. Then, Freeport researched the acid leaching process on the Nicaro ore. But an impurity in the ore made the idea uneconomical. Recently reactivated, the Nicaro plant is now under the management of National Lead Co.

In a strategic sense, there is one great advantage to a new nickel plant such as Freeport's. Government planners are banking on nickel sources that will bring in around 329-million lb. annually by 1956. By then, however, 80% of the total will come from the Sudbury Basin. So plants such as Nicaro and Moa Bay help in the dispersion of an industry that is vital in wartime.

• Other Operator—Lately, Chemico Construction Corp. has been a leading promoter of acid-type processing. Three big operators are already using all parts of Chemico's methods for one production: Howe Sound Co. for cobalt, National Lead Co. and Sherritt Gordon Mines, Ltd., for copper, nickel, and cobalt.



Yardstick for Smog

With this spectroradiometer, scientists at the Southern California Air Pollution Foundation say they can measure the amount of smog in the air. The foundation is doing research to find why so much smog occurs in the Los Angeles area (BW-Oct. '54, p30).

NEW PATTERNS FOR PROFIT



Could Easily Assembled Reinforced Plastic Cooling Towers Cut "Water Cost," Spur Built-in Home Air Conditioning?

Excessive water use—that's been a major drawback to built-in air conditioning for private homes...when a small "custom built" cooling tower was beyond the "budget." But a standardized, molded plastic cooling tower might be the answer!

The "home size" cooling tower illustrated provides 48 cubic feet for standard redwood filling...consists of six pieces, easily assembled from just *four* separate moldings; could be shipped "knocked down." The attractive, colorful reinforced plastic is the same material used in glass-reinforced plastic sports car bodies, flat and corrugated building panels, molded bath tubs, and hundreds of other

applications. It is a "no maintenance" material, light in weight, rot-proof, chemically resistant.

The cooling tower shown is a preliminary design...but worked out in all details except the filling. If you would be interested in manufacturing (or distributing) this tower, contact Monsanto. If you'd like to study a set of engineering drawings showing the design of the molded cover, sides, sump and details of assembly, send \$1.00 to cover handling and mailing. Manufacturers who prefer to subcontract for reinforced plastic parts can reach reliable custom molders through Monsanto.

Monsanto is a major producer of

STYRENE MONOMER, PHTHALIC and MALEIC ANHYDRIDE, and FUMARIC ACID... basic raw materials used in the manufacture of polyester resins. For application details, write or call **MONSANTO CHEMICAL COMPANY, ROOM 1203T, PLASTICS DIVISION, SPRINGFIELD, MASS.**



HYSTER COMPANY PRODUCES IN NIJMEGEN

FOR WORLDWIDE MARKETS

another example of why

AMERICAN INDUSTRY TURNS TO THE NETHERLANDS



"I hope that Holland and the people of Nijmegen are as glad to have us as we are to be there," says Ernest G. Swigert, President of Hyster Company, Portland, Oregon.

"Our decision to locate a subsidiary factory in Holland for our comprehensive line of materials handling equipment—ranging from hoists mounted on Caterpillar tractors to gasoline and diesel powered lift trucks—was made after a two-year survey of all European countries," continues Mr. Swigert.

"The principal factor in our decision was the fact that Holland is in a position to exchange goods with almost every country of importance—a factor which we feel will be a controlling one in foreign trade.

"With the establishment of our Holland subsidiary, our equipment will be available anywhere in the world for payment either in guilders or in dollars. Naturally, we want all parts to be completely interchangeable, whether made in America or Holland, and we have found Dutch manufacturers most cooperative in meeting our standards in this respect."

The setting up of Hyster's Netherlands subsidiary was simplified by the helpfulness of officials in the Dutch government, as well as those of the City of Nijmegen, who made available temporary working quarters while the factory was being completed.

Other factors which are leading more and more major industrial companies to turn to manufacturing in the Netherlands are *transferrability of profits to the United States in dollars*; low investment and production costs; freedom from import duties on raw materials; economy of transportation of finished goods; skill and adaptability of Dutch workmen.

The Netherlands Industrial Institute has detailed information on all questions pertaining to the establishment of American industry in Holland. A letter or phone call to Mr. Joseph P. Bourdrez, General Manager, will bring this information to you.

NETHERLANDS INDUSTRIAL INSTITUTE

Room 48, 1-M-J, The Biltmore, New York 17, N. Y., LExington 2-5069.



GIANT shield burrows its way under the Hudson to form the third artery of the Lincoln Tunnel.

Lincoln Tunnel

The new tube, costing \$100-million, will increase annual vehicle capacity by 50%.

The giant steel shield above took its first bite into the mud at the Hudson River bottom last week. Over the next 14 months, it will bore its way from Weehawken, N. J., to West 38th St., in New York.

By 1957, when the tube is ready for traffic, New Jersey commuters will have a new route into Manhattan, and the New York Port Authority will have a third tube for its Lincoln Tunnel—at a cost of \$100-million.

The 240-ton shield is 18-ft. long, 31½-ft. in diameter. It is pushed forward into the river's basin by 28 giant hydraulic jacks, each with a 200-ton thrust.

• Mechanics—About 200 sand hogs will work around the clock, six days a week, until the shield pokes through in Manhattan. The tunnel will have more than 2,000 individual cast iron rings, 31 ft. in diameter and 32-in. wide-spaced along its mile-plus route. To form one of these rings, a mechanical erector arm attached to the rear of the shield will lift 14 ring segments, each 7-ft. long, into place, then lock the ring into place with a key segment.

At the center of the river, the top of the tube will be about 75 ft. below the water's surface, and about 25 ft. below the river bed.

• More Traffic—Last year, over 20-million vehicles used the Lincoln Tunnel. The third tube will increase the tunnel's annual capacity by 50%.



Northern Pacific's Streamliner, Cocolalla Lake, Idaho

Shostal Press Agency Photo



Bullard Mult-Au-Matic

Type "K"—Available with 6 spindles, 6 twin spindles, 8 spindles and 8 twin spindles

The Invisible Background

. . . of Industrial Progress . . .

Since the driving of the Golden Spike on May 10, 1869 linking the Central Pacific and Union Pacific Railroads, this mode of travel has been the lifeline of our commercial and industrial activities.

Railroads have kept pace with the needs of the nation by promoting more modern equipment and methods. Today's streamlined diesels speed over the rails replacing steam locomotives. De luxe coach and Pullman cars, unknown a few years ago, now provide greater conveniences and luxuries for the traveler.

Railroads and manufacturers of railroad equipment have long recognized the importance of *Modern Machine Tools* in the efficient production of their products—another evidence of "The Invisible Background of Industrial Progress."

THE BULLARD COMPANY • BRIDGEPORT 2, CONNECTICUT

under the
y of . . .

costing

increase

city by

we took its
the Hudson
the next
way from
38th St.

ready for
will have
and the
ll have a
unnel-at-

-ft. long
shed for
28 giant
200-ton

hogs will
a week
in Man
we move
on rings
n. wide-
route. To
mechanical
car of the
ments, each
the ring

the top of
below the
ft. below

r 20-mil-
Tunnel
the tun-

20, 1954



Do it better, chemically... do you want your lacquer or varnish to produce a rich, flat finish without

expensive hand rubbing? Davison's Syloid® 308 and Syloid 162 can do the job! Is pressure build-up in metallic paints a problem of yours? Syloid AL-1 eliminates this worry! Are you looking for a good anti-blocking agent

for clear, plastic film? Syloid 244 will answer your problem! Davison's finely divided silicas answer many problems for manufacturers of paints and other products. Call Davison and see if these silicas can help you.

Progress Through Chemistry

DAVISON CHEMICAL COMPANY

Division of W. R. Grace & Co.

Baltimore 3, Maryland

PRODUCERS OF: CATALYSTS, INORGANIC ACIDS, SUPERPHOSPHATES, TRIPLE SUPERPHOSPHATES, PHOSPHATE ROCK, SILICA GELS AND SILICOFLUORIDES. SOLE PRODUCERS OF DAVCO® GRANULATED FERTILIZERS.



For the best in granulated homogeneous mixed fertilizers, SEE YOUR FRIENDLY DAVCO DEALER.



Petroleum catalysts by Davison help keep travel in America the finest in the world. SEE DAVISON.



Davison's Research creates new products or makes existing products better. WRITE DAVISON.

Silico
the P
down
expand
the g
indus
in th

ACF
electr
roof
search
produ
ment,
ACF
ACF
and A
N. J.

A \$2
Winn
up No
plants
peg a

The V
engine
operat
nautic
British
valid
already
by Ca

Gener
dustri
ledo.
GE se
service
St. La
pany
busine

More
Chem
of a s
year.
Olin,
betwee

Gettin
Stand:
Colora
produ
-450:
zero,
Super-
guide

A new
cal Co
will so
for ins
plant
terials
plastic

BUSINE

PRODUCTION BRIEFS

Silicon price cut: Du Pont has shaved the price of its pure silicon by \$50—down to \$380 a lb. The company is expanding production to keep pace with the growing demand in the electronics industry. Silicon is the prime element in the production of transistors.

ACF Industries is bringing a third electronics company under its corporate roof—the 23-year-old Engineering & Research Corp. of Riverdale, Md. E&R produces electronics and aircraft equipment, employs some 1,800 people. ACF's other electronics subsidiaries are ACF Electronics of Alexandria, Va., and Avion Instrument Corp., Paramus, N.J.

A \$20-million pipeline is planned by Winnipeg & Central Gas Co. to link up North Dakota's butane and propane plants at Tioga with markets in Winnipeg and other Manitoba cities.

The Viscount Turboprop, Britain's four-engined airliner, has been approved for operation in the U.S. The Civil Aeronautics Administration will accept the British certificate of airworthiness as valid for the U.S. Forty Viscounts have already been purchased for U.S. runs by Capital Airlines (BW-Jul. 3 '54, p41).

General Electric Co. will build an industrial apparatus service shop in Toledo. With automation on the horizon, GE sees a need to expand this kind of service organization. Also, with the St. Lawrence Seaway coming, the company expects to increase its ship repair business.

More cellophane: Olin Mathieson Chemical Corp. will start construction of a second cellophane plant early next year. The Indiana site, to be named Olin, will be on the Wabash River between Covington, Ind., and Danville, Ill.

Getting colder: The National Bureau of Standards said last week that its new Colorado laboratory has succeeded in producing temperatures as low as -450°F. That's just 9°F above absolute zero, the lowest possible temperature. Super-cold studies have applications in guided missile research.

A new production unit at Dow Chemical Co.'s Allyn's Point (Conn.) plant will soon turn out plastic foam material for insulation. Dow opened the parent plant two years ago to make basic materials for household and industrial plastics.



A Short Cut to Sales

Praise of your product from friend to friend is one of the quickest ways to gain and maintain sales leadership for your business. No other form of promotion generates quite the same warm, personal response in so many prospects.

When praise is repeated to many new listeners, you have a dependable short cut to sales.

The Way to Win Praise

The way to get people to speak well of your product is to give them facts in detail. Interest them in the special advantages your product offers. Show them clearly all the benefits they can gain from its use. Explain fully why and how it surpasses competing products. Omit no selling points, even the minor ones.

To do this promotional job adequately you need selling literature: booklets, folders, brochures, broadsides, catalogs, reports, bulletins—printed pieces that provide ample space to tell your story convincingly.

Your Ally—A Good Printer

For the most effective selling litera-

ture you need a good printer—and you need him early in the creative process. So, before you arrive at important decisions about your printed pieces, call him in for consultation. He can then apply his special skills more freely at every step and save you more in time, effort and money.

Printers with an eye to superior printing specify Warren's Standard Printing Papers. They know they can achieve the maximum in uniform brilliance—and get it with economy. They've been doing it for a hundred years.

*S.D. Warren Company, 89 Broad Street,
Boston 1, Massachusetts.*

BETTER PAPER — BETTER PRINTING



Printing Papers

POUCHPAK^{*} WON'T BURST



IN 10" VACUUM - UNDER WATER

Tough test for this government beverage powder package is to submerge it in water and apply a 10" vacuum. It bulges like a pillow, but there are no tell-tale air bubbles, no burst seams. The package is made of a special Riegel paper . . . a triple lamination of pouch paper, foil and polyethylene. It's just one more example of Riegel's ability to make paper for almost any need. Over 600 Riegel papers now available. Just tell us what you want paper to do for you. Write to Riegel Paper Corporation, P.O. Box 250, New York 16.

*Trademark

Riegel
SPECIAL PAPERS
for
INDUSTRY

NEW PRODUCTS

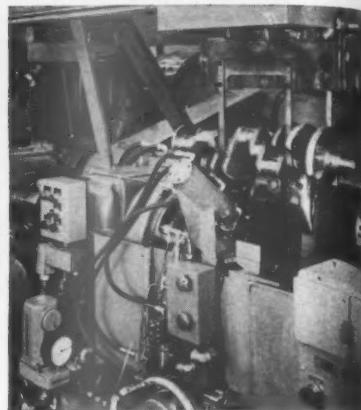


Two Jobs in One

This electric typewriter is connected by cable to a card punch machine (at left). Result: Punched cards for accounting use are prepared automatically as a byproduct of typing operations.

International Business Machines Corp., developer of the new unit, says it can be used when a typing operation is the first step in an accounting procedure. It's an important addition to IBM's line of feeder equipment for large-scale data processing systems.

- Source: International Business Machines Corp., 590 Madison Ave., New York 22, N. Y.



No Human Hands

Norton Co. believes that this is the first automated crankpin grinder ever made. It was announced by the company last week.

It will pick up a crankshaft from a conveyor line, automatically position the work in four successive grinding stations, then place the finished work on a conveyor that carries it to the next operation.

It goes through all of these steps without human effort, and grinds one shaft every minute.

- Source: Norton Co., Worcester 6, Mass.



Built-In Ink

This draftsman's pen has an ink cartridge built into its shaft. Instead of dipping it into the ink bottle when it's dry, for a refill you push the button at the top of the shaft.

The manufacturer, Rule-O-Matic Corp., says each cartridge holds the equivalent of 55,000 inches of ruled lines, or 132 trips to the ink bottle. Retail: \$14.95.

- Source: Rule-O-Matic Corp., 38 East 57th St., New York 22, N. Y.



It Walks and Talks

This eerie plastic toy started out as a promotion gimmick for a new Republic Pictures Corp. science-fiction movie. It created enough interest as a display item to make Ideal Toy Corp. decide to mass-produce it.

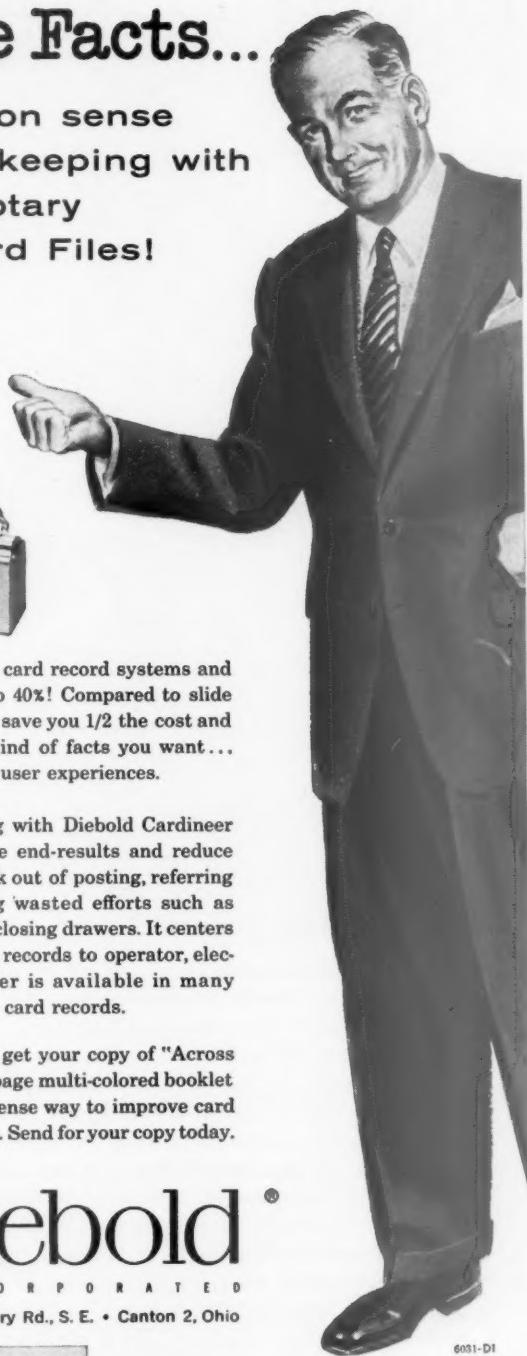
From a control box, the robot man can be made to walk and talk (there is a record mechanism in its back). Retail: \$6.00.

- Source: Ideal Toy Corp., 200 Fifth Ave., New York, N. Y.



Get the Facts...

on common sense
record keeping with
**Diebold Rotary
Card Files!**



Here's a way to improve active card record systems and realize a time savings of up to 40%! Compared to slide visible files, Cardineer also can save you 1/2 the cost and 1/2 the space. These are the kind of facts you want... facts based upon thousands of user experiences.

Common sense record keeping with Diebold Cardineer Rotary Card Files can improve end-results and reduce costs. Cardineer takes the work out of posting, referring and signalling by eliminating wasted efforts such as walking, carrying, opening and closing drawers. It centers all work at desk level... brings records to operator, electrically or manually. Cardineer is available in many styles and sizes for all popular card records.

Fill out the coupon below and get your copy of "Across The Land It's Cardineer," a 20-page multi-colored booklet illustrating the new common sense way to improve card record systems and save money. Send for your copy today.



NOW YOU CAN HANDLE YOUR RECORDS
at $\frac{1}{2}$ the cost
in $\frac{1}{2}$ the space
with a 40% savings in time

Serving American Business For Nearly a Century

THE COMPLETE LINE FOR HANDLING AND PROTECTING RECORDS AND MONEY

Diebold®

INCORPORATED
926 Mulberry Rd., S. E. • Canton 2, Ohio



Diebold, Inc.
926 Mulberry Rd., S. E.
Canton 2, Ohio

Please send full information about Cardineer Rotary
Card Files for our _____ Records.

FIRM _____

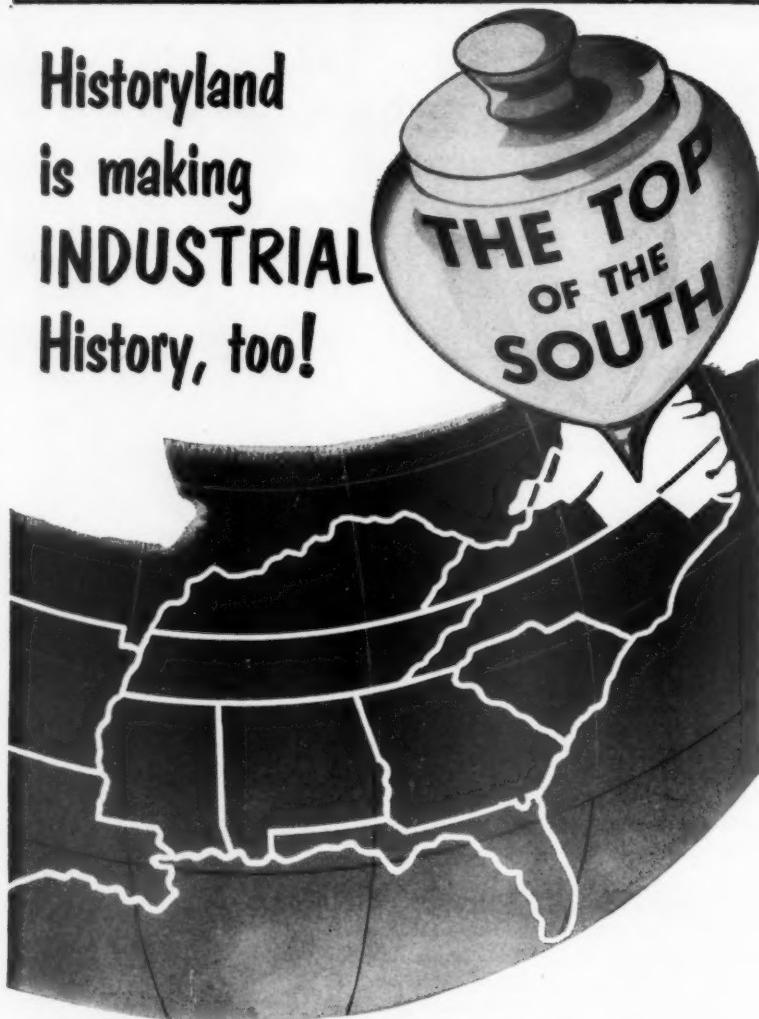
INDIVIDUAL _____ TITLE _____

STREET _____

CITY _____ ZONE _____ STATE _____

6031-DI

Historyland is making **INDUSTRIAL** History, too!



The "Top-of-the-South" and industrial progress go hand in hand. Plenty of loyal, skilled labor. Decades of management-labor harmony. Modern, fast-paced transportation network to the nation's markets, and to world markets through the unequalled Ports of Hampton Roads. Favorable, all-weather climate. Well-balanced growth between industry, agriculture and trade. And—this is important—plenty of room to grow.

Existing electric power facilities and those now under construction assure a plentiful supply of economical and dependable Electricity to meet all present and foreseeable needs here at "The-top-of-the-South."

This is a cordial invitation to ask us for any information you desire on this area. We'll supply it confidentially, and in as great detail as you need.

AREA DEVELOPMENT DEPARTMENT

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND 9, VIRGINIA

New Adsorbent is More Selective

For the machinery manufacturer who must protect his inventory from rust, or the steel producer who needs an extremely dry gas for annealing steel, Linde Air Products Co. announced a new product this week.

The product is an adsorbent—it can attract certain substances to its surface, hold them there as long as necessary. Also, it does not react chemically with substances it attracts.

The new Linde adsorbent tends to attract substances on the basis of their molecular size. For example, one of its adsorbents (there are two sizes available) will attract only molecules that are smaller than 16-billionths of an inch in diameter. The other adsorbs only those molecules that are smaller than 20-billionths of an inch. Older adsorbents did this selecting job on the basis of a molecule's boiling point, adsorbing the molecules that had high boiling points in preference to those that boiled at lower temperatures.

These are some of the jobs the new adsorbent will tackle:

- Super-drying of air and natural gas. The Linde adsorbents (which look like tiny white pellets) can dry gases at elevated temperatures, 200 F and above.

- Gas purification. Such substances as carbon monoxide, carbon dioxide, and ammonia can be adsorbed, and removed from a gas stream before they inhibit reactions or corrode equipment.

Linde says that its new adsorbents will be sold for \$1.95 per lb.

- Source: Linde Air Products Co., a division of Union Carbide & Carbon Corp., 30 East 42nd St., New York.

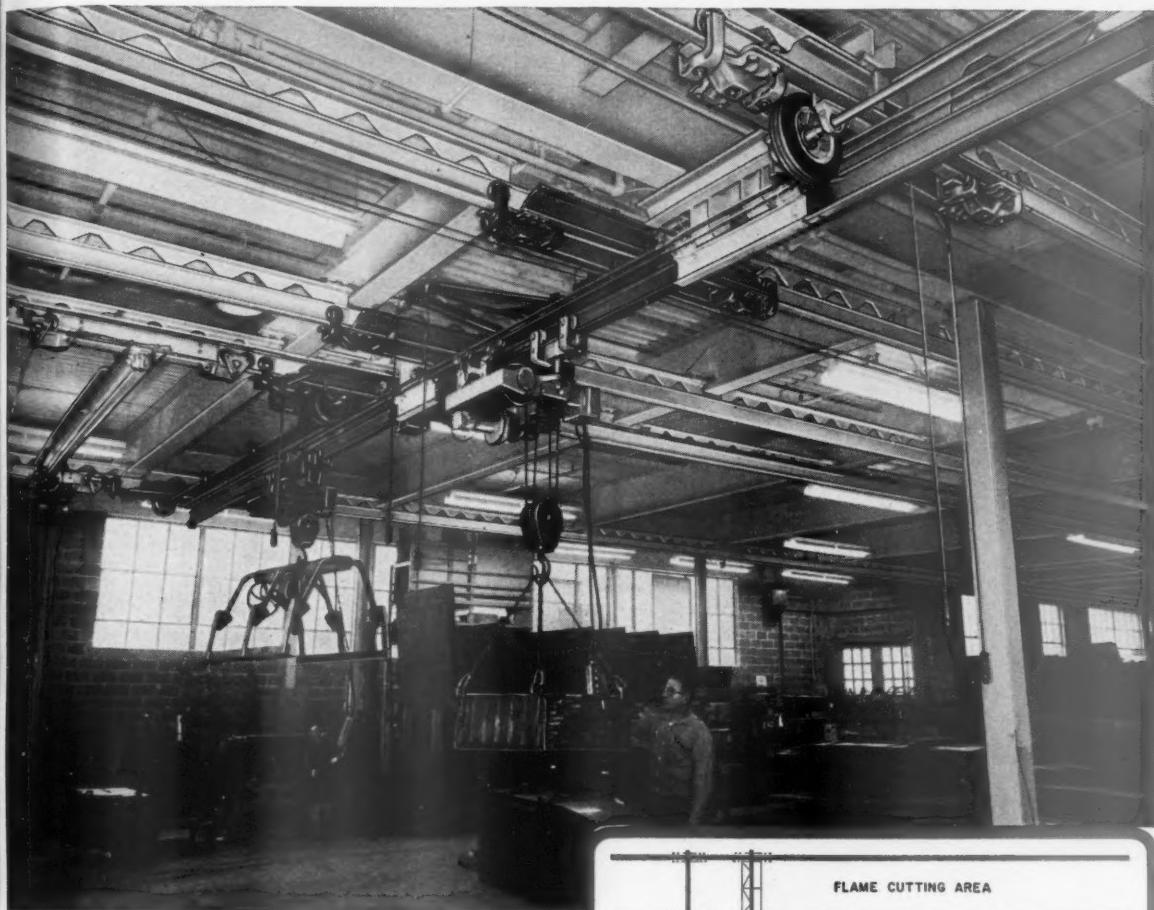
NEW PRODUCTS BRIEFS

A refrigeration compressor, said to be the lightest and most compact ever built, is being produced by Frigidaire for use in the air-conditioning systems of General Motors cars. It is the size of a football, has a refrigeration capacity equal to 24 household refrigerators.

Uranium chart: The Colorado School of Mines Research Foundation, Inc., has announced a correlation chart of 160 uranium-bearing minerals. Measuring 50 in. by 32 in., it tells you each mineral's chemical composition and how to identify it. Price: \$5.00.

An air-conditioning unit that fits flush against a room wall, and doesn't interfere with the movement of curtains or draperies has been announced by General Electric Co.

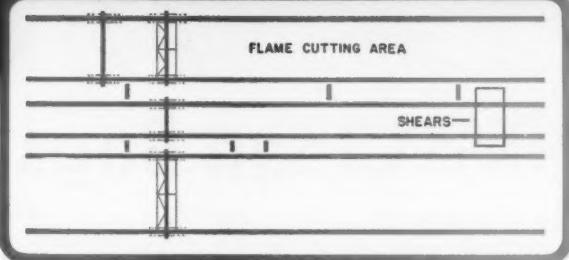
Need plant-wide handling?



Here Louden can serve you best

Typical of how Louden Engineered Handling Systems can integrate the handling operations in an entire plant or any part thereof, is the installation shown above. Here an eastern manufacturer uses a Louden Interlocked Crane and MotoVeyor System to cover unloading, storage, shearing and flame cutting. A Louden MotoVeyor picks up a 5-ton bundle of steel sheets or bar stock from a truck, travels via transfer sections from one crane to another, there to unload in storage, or to carry its load to shears or flame-cutting department. It does this without setting down the load, without rehandling, without delay or interference to other operations.

Handling costs are *always* cut, handling is *always* accelerated, manpower needs are *always* reduced,



production often increases when Louden engineered systems take handling out of the hands of men, off the floor, out of the way of production. From integrated plant-wide handling system, to simple hand-pushed monorail carrier, Louden's longest experience and competent engineering will best meet your needs.

THE LOUDEN MACHINERY COMPANY

4111 Broadway, Fairfield, Ia.
A Subsidiary of Mechanical Handling Systems, Inc.

Louden
MONORAIL & CRANES



SEND FOR THIS BOOK—
Write for your copy of
"Economical Material
Handling" . . . full of time-
saving, cost-cutting ideas
and case histories. Free
... no obligation.

Since 1867—the first name in materials handling

LOCAL BUSINESS



Nice Clean Bags Still Garbage Din

HARTFORD -The word "G-A-R-B-A-G-E" hits you right in the eye. Nobody likes to talk about it. But 1.5-billion lb. of the stuff has to be collected across the nation every week from a lineup of odorous containers like those in the picture (left).

This week, the city of Hartford, American Cyanamid Corp., and Union Bag & Paper Corp. officially embarked on an experiment using chemically treated paper bags for garbage collection (picture, right). The city hopes the experiment will change garbage-collecting to something more pleasing to the eye, ear, and nose. The bag collection plan got a gala radio, TV, and newspaper sendoff. One somewhat awestruck postman muttered: "Guess we got the most glamorous garbage in the country."

• **The Blessings**—Hartford's "glamorous" garbage plan, according to experts

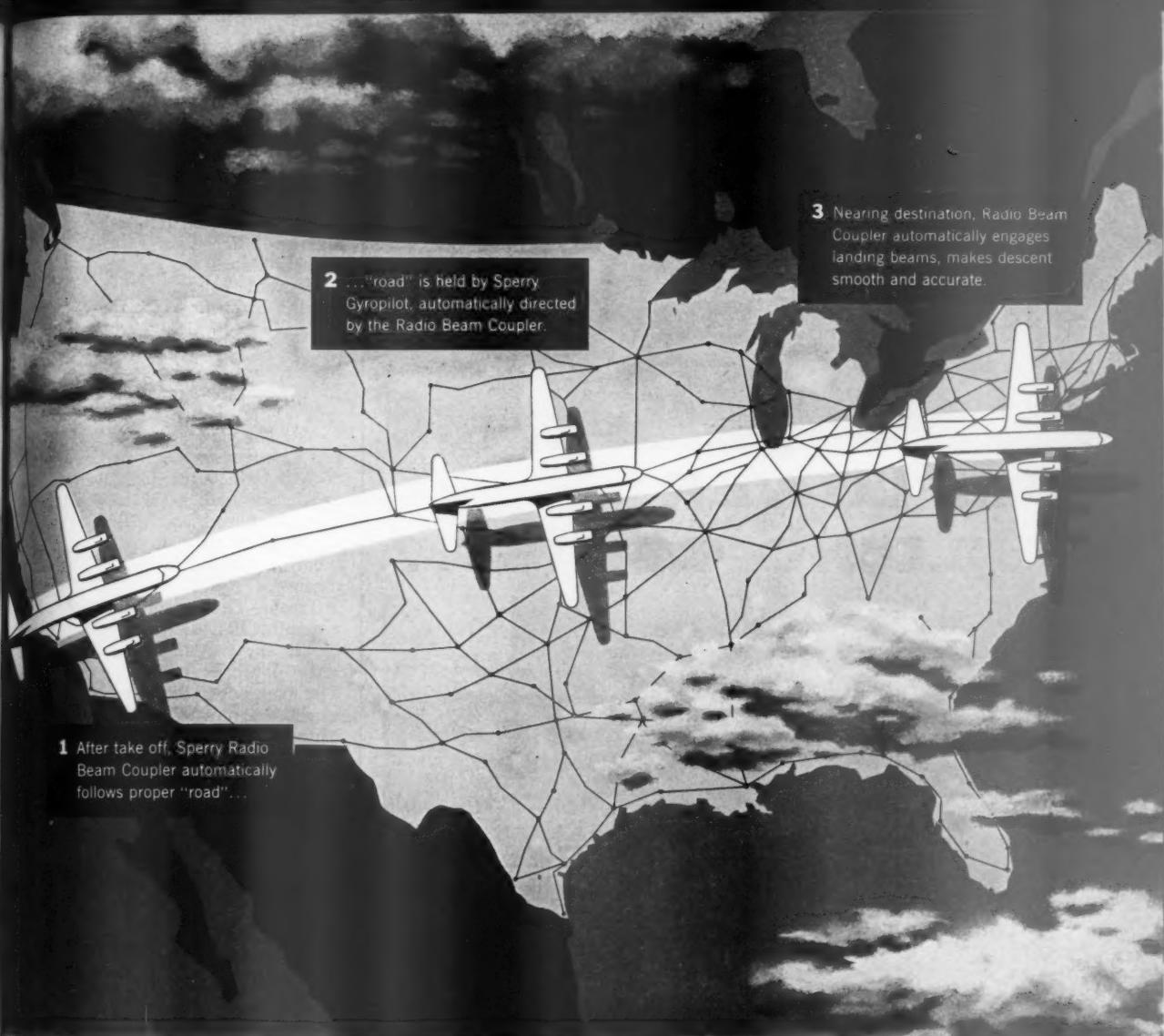
in the field, will: (1) improve sanitation—no spillage; (2) cut out noise—no can clanging; (3) pep up appearance—no cans on streets, no litter; (4) improve health picture—reduce fly and rodent menace; (5) reduce labor and maintenance costs.

Actually, Hartford (home for many insurance companies) is a tidy place run by a city manager, Carleton F. Sharpe, who "... shuns politics, runs his city like a business" (BW-Mar. 6'54, p68). Sharpe never liked the garbage can line-up on his way to City Hall. The sight, a familiar one in thousands of U.S. cities, jarred his aesthetic sensibility. He called in his health director, Dr. A. L. Burgdorf, and the director of Public Works, Charles W. Cooke. What could be done? Burgdorf had heard of a chemically-treated bag that might revolutionize the whole theory of waste collection.

Burgdorf was assigned to look into the matter. He learned that Union Bag people were conducting an experiment in Brooklyn to test the wet strength of garbage can liners. The company, through city collectors, gave out 6,000 bags. It wanted to know just how the bags would hold up. The bags, treated with melamine resin (developed by American Cyanamid), held at least 40 lb. refuse—even while soaking wet.

The "packaging out" garbage experiment paid off, according to Union Bag engineers, and Hartford was approached to be the next proving ground for a series of collection tests. City Manager Sharpe welcomed the idea to use his city for the tryout.

• **Disposal**—Hartford like most cities, has spent its time worrying about the disposal problem instead of collection. The budget shows that in the year 1954-5 it is spending \$44,700 in col-



NATION'S "SKY ROADS" NEARING 70,000 MILE MARK

Extension of Radio Ranges Offers Airlines Faster Schedules;
Passengers Greater Comfort

THE STORY BEHIND THE STORY:

■ Before long, you'll read headlines like the one above announcing the completion of one phase of a nationwide federal system of aerial "highways." Already 61,950 miles of these radio routes are in daily use or ready to use — and while you'll never see the broad "lanes," "ramps" and accurate "signposts" designed for your protection, they're

just as real as on your favorite turnpike.

■ To utilize the full value of these aerial highways, more and more airliners are being equipped with two Sperry developments . . . the A-12 Gyropilot* Flight Control and the new Radio Beam Coupler which employ these high frequency radio signals in actual guidance of the plane. It's a combination that can't be equaled. En route, the plane rides smoothly on an accurate course, unaf-

fected by cross winds or drift. In landing, the *human* pilot has the assistance of a tireless *electronic* pilot that automatically engages the localizer and landing beams to bring the plane accurately down to the runway.

■ For more than 40 years, military and commercial aviation has depended on Sperry to originate, develop and manufacture the finest in flight instrumentation and controls. The A-12 Gyropilot and Radio Beam Coupler are typical of many Sperry developments that make modern flights safe, dependable and comfortable.

*T.M. REG. U.S. PAT. OFF.

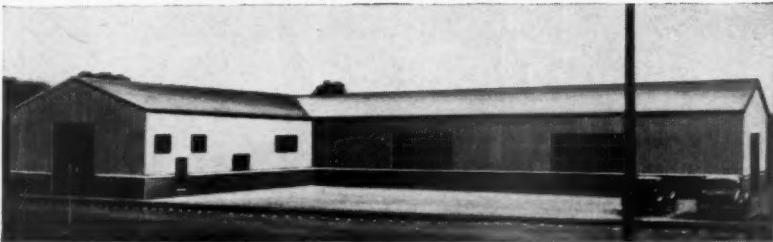
SPERRY GYROSCOPE COMPANY

DIVISION OF THE SPERRY CORPORATION • GREAT NECK, N.Y.

FOR HIGH-SPEED EXPANSION . . .



AND LOWER BUILDING COSTS . . .



LURIA STEEL BUILDINGS



BUILD NOW—WITH THE ADVANTAGES OF STANDARDIZATION plus the FLEXIBILITY and ADAPTABILITY of CUSTOM UNITS

SPEED, ECONOMY, PERMANENCE—all part of your expansion program . . . when you build with Luria. For speed, Luria's inventory of completely fabricated structural parts shortens delivery time. For economy, Luria Buildings provide substantial *initial* savings and *maintenance* savings. For permanence, Luria materials surpass the most stringent building regulations.

BUILT TO YOUR INDIVIDUAL REQUIREMENTS. The famed adaptability and flexibility of Luria structures make possible practically any arrangement and architectural treatment . . . without sacrificing the economies of standardization.

LURIA ENGINEERING COMPANY

511 Fifth Avenue, New York 17, N.Y.



District Offices: Atlanta • Philadelphia • Boston
Chicago • Washington, D.C. • Plant: Bethlehem, Pa.

lection payrolls and only \$140,900 in disposal payrolls.

This meant that while the new incinerator devoured more than 400,000 lbs. of waste neatly and efficiently every day, an army of men (called "rollers") rattled and banged around town following a collection pattern that dates back to the middle ages.

Hartford "rollers" used to go into a family's backyard, carry the heavy can out to the compacting truck, whack it against the tailgate and then put the can back on the tree lawn or sidewalk. In this operation much of the garbage spilled onto the driveway, sidewalk, and street. The new paper bag system goes this way: Housewives are given a supply of bags, which are placed into clean cans every week as liners. When the bags are folded and sealed, collectors simply pluck them from cans and toss them into a truck—the can is never touched.

• Tryout—The system will be tried for a month. If housewives and collectors like it, the city might buy. There are a few drawbacks, according to Sharp. The main one is the cost. At 6¢ a bag, Hartford is not so sure it is getting a bargain. The bags will cost \$250,000 a year extra but the city will save \$200,000 on labor and equipment (already they have cut the test collector force from 29 to 20). This leaves a total \$50,000 yearly tab. The second, and much lesser, complaint is the possibility of the bags sticking to the can in freezing weather. Union Bag says they won't—Hartford says "let's wait and see."

City officials from Springfield, Mass., however, watched the Hartford collection, and liked the idea of not moving the waste cans. Their service includes taking the can from a family's basement, dumping it into a garbage collection truck, and returning it to the basement.

Road Rules

ALBANY—New York State Thruway authorities have put out a rule book that covers everything from baby buggies to multi-ton trucks.

The book, among other things, has plenty to say about drivers. Any driver unable to find his toll ticket upon reaching an exit station "shall be charged the toll for the appropriate vehicle classification from the most distant toll station on the controlled system. . . .

Other rules:

• Vehicles drawn by animals, and "any animals led, ridden, or driven on the hoof," are verboten.

• Baby carriages: A vehicle is "any device in, upon, or by which any person or property is or may be transported or drawn upon a public highway, except a baby carriage."

• Hitchhiking: ". . . is prohibited.

new in
+400,000
ly every
rollers")
follow-
tes back
o into a
avy can
whack it
put the
idewalk
garbage
alk, and
em goes
a supply
o clean
hen the
ollectors
and too
s never
ried fo
ollector
here are
Sharpe
\$ a big
etting a
250,000
e \$200,
(already
or force
a total
nd, and
ssibility
n freez
y won't
e."
Mass.,
collect-
moving
includes
's base-
age col-
to the

e Thru-
a rule
m baby

gs, has
y driver
n reach-
charged
vehicle
ant toll
...
ils, and
ven on

is "any
ny per-
ported
ay, ex-
hibited.
20, 1954

Pharmaceuticals...and The National City Bank of New York

Drug and medical research are adding years to your life...and life to your years

A child born in the United States today can look forward to living at least twenty years longer than a child born in 1904. What's more, he can reasonably expect to enjoy better health and greater vigor all his life—the extra years included—than his predecessor of fifty years ago.

For fifty years ago the family physician had only about half a dozen basic drugs to help him fight against disease—opium, digitalis, quinine, belladonna and the mercurials, and one vaccine—smallpox.

Today, through the efforts of medical and pharmaceutical research, a doctor has more than that

many antibiotics alone. He has sulfa drugs, vaccines, vitamins, hormones, and antihistamines in great and growing numbers. He has ACTH, cortisone, insulin, ephedrine, and hundreds of other specialties that the layman never hears about.

To put still more "wonder drugs" in the doctor's hands, and to reduce the price of those he already has, some pharmaceutical houses are spending more than five per cent of their gross sales on research.

Many of the country's leading pharmaceutical houses have learned to look upon The National City Bank of New York as *their banker*. This means they avail themselves of the knowledge and experience our officers have accumulated in pharmaceutical and allied fields, as well as use the Bank's unmatched

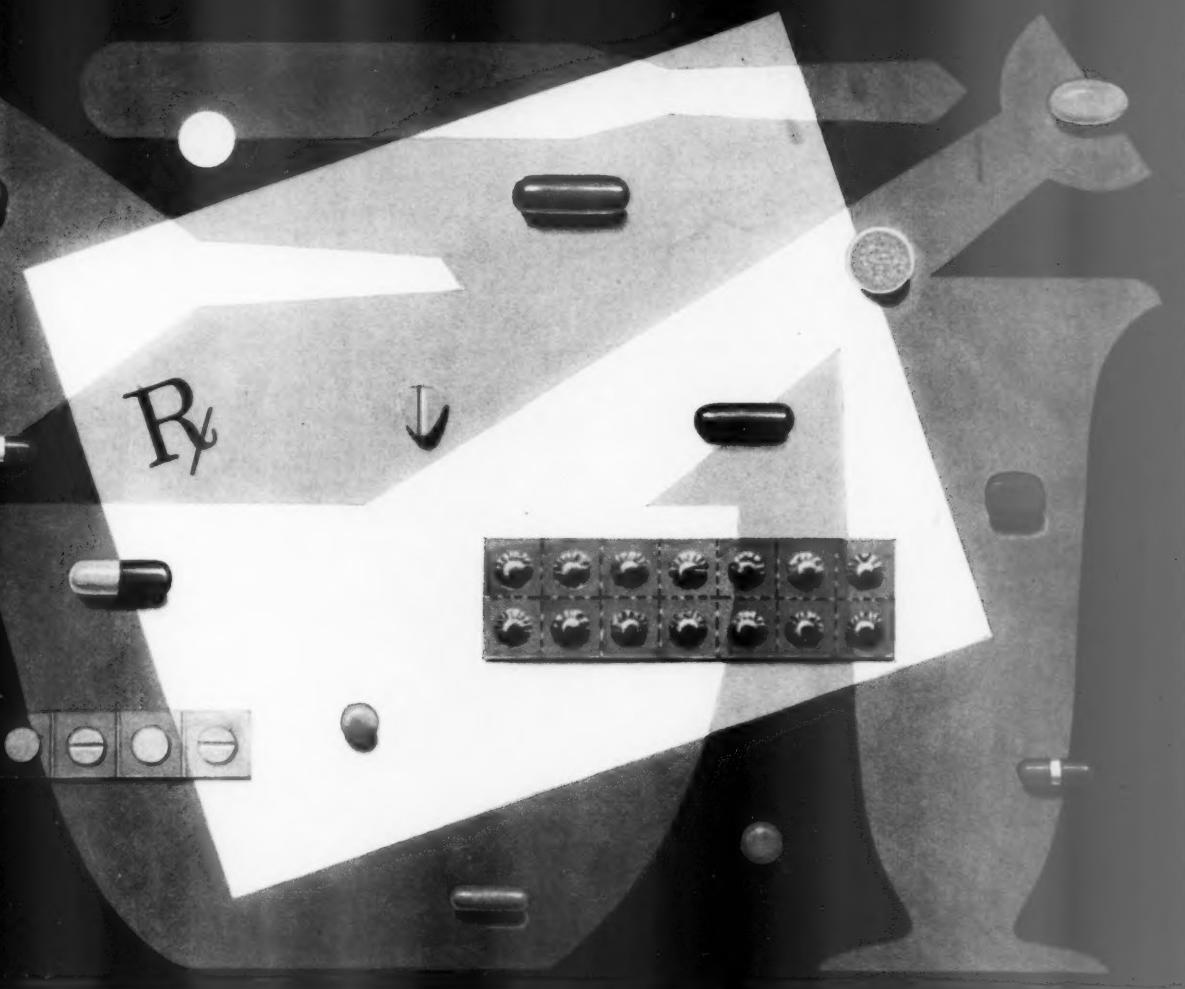
banking facilities here and abroad.

In the United States we have correspondent banks in every state and 71 Branches in Greater New York. To serve American industry overseas, we have 57 National City Branches, and correspondent banks in every commercially important city of the free world. Through us you can actually "cover the world" with one bank account. For more about the other advantages of making National City *your banker* write:

The National City Bank of New York
55 Wall Street, New York, N. Y.

Member Federal Deposit Insurance Corporation

First in World Wide Banking





whatever the job . . .

SELF-STICKING
PERMACEL® TAPES

In our complete line, there's a self-sticking tape for every job . . . write Permacel Tape Corporation, New Brunswick, N. J.

as is
pose w
permis

Last

NE

Street I

68 year

River t

Dec. 2

route v

wanna

Intersta

Lack

tion o

due ar

railroad

Barclay

bined

railroad

bus co

transfe

suburb

popula

dwindl

New

CL

for th

quarte

off-sea

openin

town a

Bot

doors

open

team

terms

want

chand

radios

and s

more

happe

ball to

the i

he wi

An

Graha

baske

the I

Series

from

tome

Nu

Pr

much

asked

solicit

dispu

dred

ticeal

him

The

taxpa

or al

taxes

BUSI

as is solicitation of funds for any purpose without the Authority's written permission."

Last Toot

NEW YORK—The Christopher Street Ferry, a Manhattan landmark for 68 years, will chug across the Hudson River to Hoboken for the last time Dec. 20th. Authority to abandon the route was given the Delaware, Lackawanna & Western RR last week by the Interstate Commerce Commission.

Lackawanna said continued operation of the ferry would impose an undue and unnecessary burden on the railroad. The Christopher Street and Barclay Street ferries showed a combined loss of \$850,000 last year. The railroad said diversion to private autos, bus competition, decentralization and transfer of industry to outlying areas, suburban shopping centers, and the popularity of television, caused the dwindling passenger volume.

New Pitch

CLEVELAND—Jim Hegan, catcher for the Indians, and Otto Graham, quarterback for the Browns, solved an off-season employment problem by opening a discount house in the downtown area.

Both young men are local idols—the doors of any business office in town are open to them. Actually, the discount team is finding it hard to get down to terms with local businessmen. They want to talk turkey about their merchandise—home appliances, TV sets, radios, furniture, jewelry, leather goods, and silverware—but businessmen seem more interested in other things: "What happened in the series? Have we got a chance to beat those West Coast football teams?" Many times a buyer wants the inside story of each team before he will close a deal.

Another problem facing the Hegan-Graham battery is how to dispose of the basketsful of baseballs autographed by the Indians prior to the 1954 World Series. The baseballs were to be gifts from Hegan and Graham to big customers.

Nuisance Tax

PITTSBURGH—How much is too much? This is what a city solicitor asked Common Pleas Court here. The solicitor, defending the city in a tax dispute, contended that several hundred thousand dollars wasn't "a noticeable amount...." The court backed him up.

The tax hassle was touched off by a taxpayer's suit asking the city to reduce or abolish one or more of its nuisance taxes. The plaintiff based his suit on

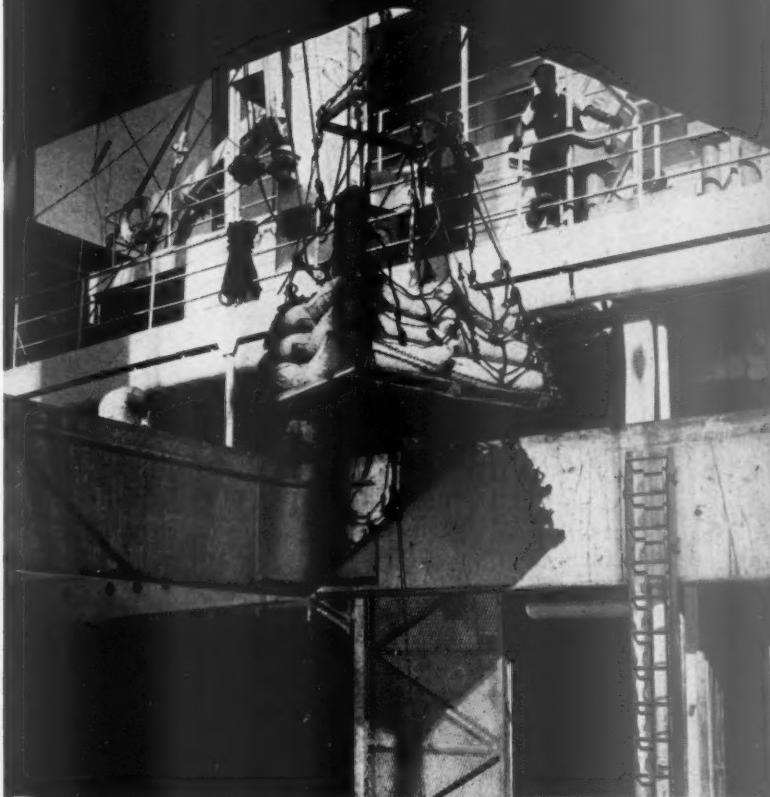
DOWN THE HATCH

... and protected all the way!

You can count on strong, experienced insurance protection all the way when your ocean cargo investments are safeguarded by Marine Office of America. From the time your shipment is picked up—loaded aboard ship—on the high seas—right up to its final destination in almost any part of the world, your protection is in able, experienced hands.

For decades Marine Office of America has furnished the finest protection obtainable for shippers, large and small. So it's just good business sense when experienced shippers depend upon the Marine Office of America for know-how, judgment and sound financial strength.

See Your Local Agent or Broker



MARINE OFFICE OF AMERICA

116 JOHN STREET, NEW YORK 38, NEW YORK

Composed of the Following Companies:

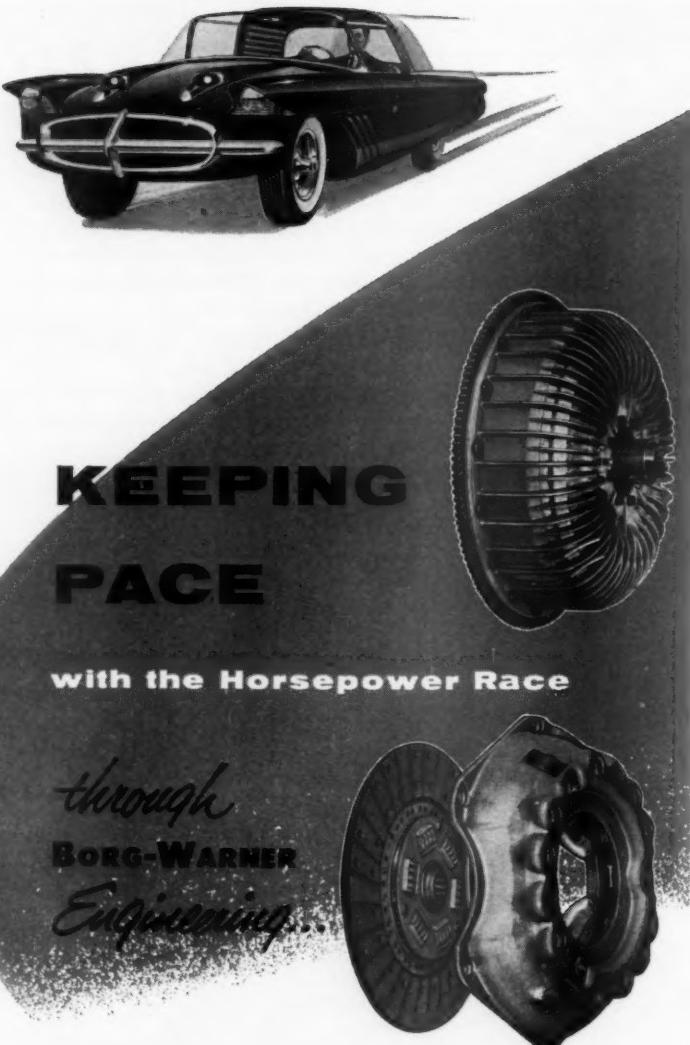
The American Insurance Company • American Eagle Fire Insurance Company • The Continental Insurance Company
Fidelity-Phenix Fire Insurance Company • Firemen's Insurance Company • Glens Falls Insurance Company
The Hanover Fire Insurance Company

Offices in 23 Principal Cities:

NEW YORK • CHICAGO • NEW ORLEANS • SAN FRANCISCO • SEATTLE • TORONTO
Atlanta • Baltimore • Boston • Cleveland • Dallas • Detroit • Houston • Jacksonville • Los Angeles
Louisville • Philadelphia • Pittsburgh • Portland • Richmond • St. Louis • Spokane • Syracuse

ALL CLASSES OF OCEAN AND INLAND MARINE INSURANCE





Time was when automobile engines of 100 horsepower were just an engineering dream. Today, engines of 200 horsepower and up are more and more common.

To carry the increased Torque of such power-loaded engines is a giant-size job for clutches or torque converters. The big problem is to pack more "muscle" into these units without increasing their over-all dimensions.

Through advanced design and engineering, Borg-Warner's Borg & Beck Division has stepped up the capacity of its famous clutches and torque converters, while keeping within the size limits of the car manufacturers.

Compact, light in weight, precision built, these B-W Borg & Beck units transmit today's stepped-up horsepower smoothly, quietly, efficiently. They, too, carry on Borg-Warner's "design it better—make it better" tradition.

B-W engineering makes it work—B-W production makes it available

Almost every American benefits every day from the 185 products made by

BORG-WARNER

THESE UNITS FORM BORG-WARNER, Executive Offices, Chicago: ATKINS SAW • BORG & BECK • BORG-WARNER INTERNATIONAL • BORG-WARNER SERVICE PARTS • CALUMET STEEL • DETROIT GEAR • FRANKLIN STEEL • HYDRAULIC PRODUCTS • INGERSOLL PRODUCTS • INGERSOLL STEEL • LONG MANUFACTURING LONG MANUFACTURING CO., LTD. • MARBON • MARVEL-SCHEBLER PRODUCTS • MECHANICS UNIVERSAL JOINT MORSE CHAIN • MORSE CHAIN CO., LTD. • NORGE • PESCO PRODUCTS • REFLECTAL CORP. • ROCKFORD CLUTCH SPRING DIVISION • WARNER AUTOMOTIVE PARTS • WARNER GEAR • WARNER GEAR CO., LTD. • WAUSAU WESTON HYDRAULIC • WOOSTER DIVISION



a little-known section of Pennsylvania's tax-anything law, which permits cities to levy special taxes, so long as collections don't amount to more than 1% of total assessed real estate evaluations.

Pittsburgh has a 10% amusement tax, a mercantile and personal property tax, plus a controversial 1% wage tax.

The plaintiff said that revenue from these taxes would bring in about \$2.8 million more than the \$11.2-million set by the tax-anything law. This would give the city "too much money," the suit maintained.

But the city solicitor whittled down the estimate to a figure near \$250,000, and told the court this sum was not worth getting excited about. The court found "no clear violation of an expressed provision of a statute . . . nor any manifest and palpable abuse of power."

Conventional Arena

DALLAS—A band of local businessmen started pushing for some kind of city showplace back in 1927, and some bonds were voted for the purpose. Then in 1945, convention-minded store owners, innkeepers, city planners again pushed for—and got—another bond issue for a city auditorium.

Last week, engineers were busy organizing final blueprints for a new \$7-million, 10,000 seat auditorium, in preparation for construction bids that will be received Dec. 17. Investors are expected to bid for the bonds Nov. 22.

Meanwhile, municipal officials are dry-washing their hands. Their apparent delight stems from the removal of the last obstacle in the way to make their city "a leading convention site." A previous step was formation of the Dallas Hotel Corp., when local businessmen put up \$1-million to induce the Statler chain to build a new hotel here.

The new convention hall will be (in Texas terms) "a dramatic and spectacular thing." It will be round, three-stories high, and dome-topped. "There will be no supporting columns to obstruct the view," say planners.

Update

COLUMBUS—After a year's operation, Ohio's controversial axle-mile tax on trucks failed to produce the expected revenue to help finance the state's expanded highway program. Truckers have been fighting the tax all the way (BW—Sept. 25 '54, p34), saying it would not come up to expectations.

The state's Tax Department said that collections for the first year totaled \$11.2-million. Experts had estimated that the yield would be more than \$20 million.



Pushbutton DICTATION

MODERN! LOWEST COST!

Paperwork f-l-o-w-s with new pushbutton dictation. You pick up a phone, push a button and dictate. It's as simple as that! And you do it at your convenience. Handling paperwork becomes a new experience in timesaving efficiency never before thought possible. And with PhonAudograph III you get new, premium features at *lowest cost ever!* For an eye-opening demonstration showing how Gray PhonAudograph III can be effectively applied to your paperwork problems . . . save you money as no other system can → call your Audograph dealer today. The Gray Manufacturing Company, Hartford 1, Connecticut.



New
GRAY
PHONAUDOGRAPH III

vania's
cities
collec-
in 1%
ations.
ment
property
age tax.
e from
t \$2.8
million
This
money."

1 down
50,000,
was not
the court
an ex-
. . . nor
use of

business-
kind of
d some
e. Then
re own-
s again
bond

ousy or-
new \$7-
um, in
ids that
ctors are
Nov. 22.
ials are
r appar-
oval of
to make
on site."
n of the
ical busi-
induce
new hotel

ll be (in
nd spec-
d, three-
"There
s to ob-

r's open-
e-mile tax
the ex-
ince the
rogram.
the tax
34), say-
expecta-

said that
r totaled
estimated
than \$20-

20, 1954

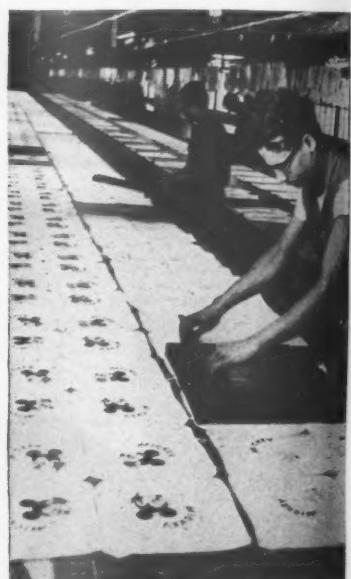
INDUSTRIES



SILK SCREEN PRINTING now covers everything from beer bottles to electronic circuits. The growing number of uses, displayed at the industry's annual convention in Cleveland this month, indicates just how far the process has come since World War II.



TEXTILE CREATORS' artist ready design for transfer to screen material. For best results, a photographic stencil is made.



PASTE of dye and chemicals is poured on screen, which is placed on cloth. Rubber squeegee forces paste through screen.

An Old Art Whips Up a Big Show

"My personal view," says Randy Ragan, vice-president of Screen Printing Research Corp., of Los Angeles, "is that there is nothing that can't be printed by screen process."

The Screen Process Printing Assn. International closed its sixth annual

convention this month pretty well convinced that Ragan has the right pitch. While in Cleveland, association members traded news of the latest doings in the industry, and most of them got some surprises.

Among other things, they learned

that silk screen printing is invading what the industry formerly considered outer-space realms. For example, Olin Mathieson Chemical Corp. is using a silk screen process in a new metal-bonding process (BW-Oct. 30 '54, p. 96). In electronics, silk screening is being



SCREEN material is stretched tightly and secured to wooden frame. The stenciled design is then transferred to screen.



PRINTED cloth is taken from table, placed in overhead rack for air drying. Later, it's put through an oven-drying process.

Big Business

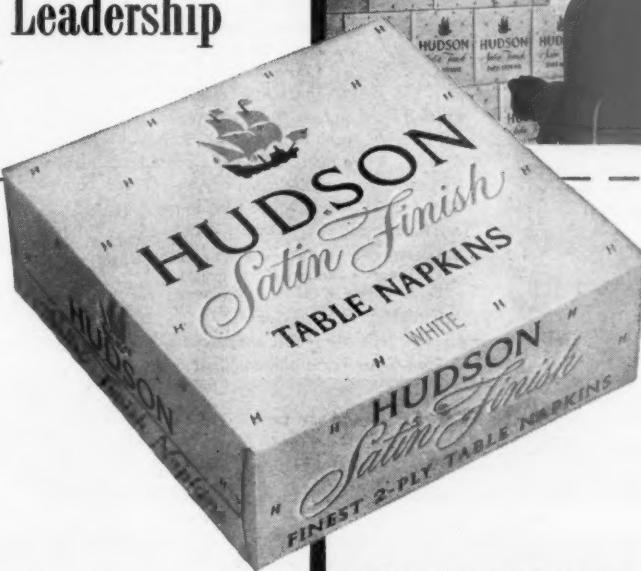
used to print circuits with conductive inks. It's also used in the manufacture of color TV tubes. And the process has even been adapted to print on bottles.

• **Into Industry**—This rapid expansion in so many directions explains why

20, 1954

BUSINESS WEEK • Nov. 20, 1954

New Package Helps Maintain Sales Leadership



Another
case history
of successful
"packaging
by National"

Outstanding packaging has been a major factor in the growth of the Hudson Pulp & Paper Corp.'s diversified line of household paper products.

This new Hudson Satin Finish Table Napkins box is one of a number produced by National Folding Box Company, Inc. for the world's largest manufacturer of paper napkins.

An impressive variety of nationally advertised consumer products . . . ranging in retail price from pennies to many dollars . . . are packaged in boxes and displays designed and made by National Folding Box.

Tell us about your package. Chances are, National experience can be helpful in making it a more effective sales tool.



**NATIONAL
Folding Box
COMPANY, INC.**

SUBSIDIARY OF FEDERAL PAPER BOARD COMPANY, INC.

SALES OFFICES: CHRYSLER BUILDING, NEW YORK 17, N.Y.; NEW HAVEN, CONN.; BOGOTA, N.J.; PALMER, MASS.; STEUBENVILLE, OHIO; VERSAILLES, CONN.; BOSTON, MASS.; PHILADELPHIA, PA.

FOLDING BOX PLANTS: NEW HAVEN, CONN.; BOGOTA, N.J.; PALMER, MASS.; STEUBENVILLE, OHIO; VERSAILLES, CONN.

PAPER BOARD MILLS: BOGOTA, N.J.; NEW HAVEN, MONTVILLE, VERSAILLES, CONN.; READING, PA.; STEUBENVILLE, O. (WHITE HALL, MD.)

New

PLAN-GEAR Compound Planetary TRANSMISSION

What a Sales Feature!

...if you make a machine
which requires gear shifting

The PGT-150 is as simple to operate as an electric motor. No clutch to push. No operator fatigue. Only one hydraulic control lever shifts the PGT-150 Plan-Gear Trans-

mission from high to low or reverse in only 1½ seconds. It's utterly smooth . . . no shock, no jerk, no noise.

Built-in oil pump provides pressure for actuating controls, lubrication, and torque converter. Rated at 150 pound-feet continuous input torque for constant duty.

DESIGNED FOR: Lift trucks • Truck mixers
Conveyors • Slushers • Car pullers
Earth movers • Hoists and cranes
Machine tools • Power takeoffs

1. Input shaft
2. Hydraulic clutch actuator
3. Multiple disk clutch for locking planetaries
4. Low speed planetary
5. Reverse planetary
6. Output shaft



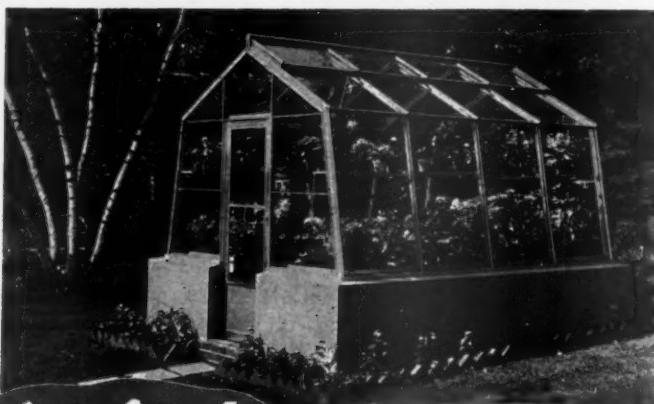
Tell us your job and let's see if this simple, sturdy
PGT-150 Plan-Gear Transmission fits it



AMERICAN GEAR & MFG. CO.

New Avenue, Lemont, Illinois • Phone: Lemont 920

subsidiary of BRAD FOOTE GEAR WORKS, INC.
1309 South Cicero Avenue, Cicero 50, Illinois



Orlyt

ALUMINUM GREENHOUSE

What A Splendid Christmas Gift For
Husband, Wife, And The Entire Family

Now Only \$20 Per Month buys the Orlyt pic-
tured. Size 10 by 11 ft.—\$594. All ready to
go on your foundation. Others from \$339—
only \$12.00 per month.

Maintenance-free for a lifetime of carefree
gardening. Easy-to-put-up any time, anywhere. Send for fascinating Catalog No.
3-N-2.

LORD & BURNHAM

IRVINGTON, N.Y. • DES PLAINES, ILL.

AGENTS WANTED

nobody at the convention would risk an estimate of how many people are in the screen processing business now. Most veterans agreed that, prior to World War II, total business did not exceed \$2-million annually. Some guessed that if it were possible to poll industrial plants and all the hush-hush developments in secret electronic projects, total volume for the screen process industry could come close to \$1-billion a year—maybe even \$1½-billion.

While the backbone of the industry still is the "point-of-sale" display advertising materials it produces, the most exciting news is the spread of its industrial uses. The advertising end of the business got a tremendous boost about six years ago, through the development of fluorescent inks and paints, which made possible three-dimensional effects in vivid hues. In addition, improvements in mechanical operations and in negatives permit runs up to 1-million copies. "But," Ragan claims, "industrial uses have already exceeded the dollar volume of commercial application. The gains in this field in the last five years have been tremendous."

• Old Art—Silk screen printing really started for town during World War II. While it's one of the oldest known forms of reproduction—Marco Polo returned to Europe from China in the 14th Century with samples—its chief use had been for short runs of large, simple designs, such as billboards, showcards, theatrical posters.

Up until a few years ago, silk screen printers used the centuries-old process. A design was painted in reverse on the silk, which was stretched on a wooden frame. Pigmented paint or ink was then forced through the silk design, creating a positive impression on the material to be printed. The process was slow, cumbersome, and done entirely by hand.

• War Baby—The war created the necessity of marking new, unfamiliar articles with identifications and instructions—and silk screen printing came into its own because items had to be marked permanently and had to withstand extreme conditions. At high altitudes and at extreme low temperatures, the labels, tags, and decals with the adhesives then available wouldn't stick. As a result, the industry had to scratch around to improve methods and materials to keep pace with production requirements. And, as is usually the case, improvements in one operation set off a chain of improvements in other operations.

The first big change came in stencil cutting. To reproduce a fine detail—impossible to achieve by hand—special photographic stencils were developed. These made it possible to use new plastic materials instead of paper. All this

ANOTHER new key has been added!



Becomes a Hilton Hotel

IT IS with great pleasure that Hilton Hotels announce the acquisition of the Shamrock—a magnificent hotel in the heart of Texas. The attractively decorated Shamrock has individually controlled air-conditioning in every room, beautiful year-round outdoor swimming pool,

glamorous supper clubs with dancing to name bands, complete convention facilities, and a 1000-car garage. Loyal friends of the Shamrock will find the hotel's unique individuality has been faithfully maintained and the service greatly enhanced by high standards of Hilton hospitality.



Executive Offices, Chicago 5, Ill.

Conrad N. Hilton, President

ould risk
people are
ess now,
prior to
did not
. Some
e to poll
ush-hush
nic pro
en proc
e to \$1-
\$1-billion.
industry
play ad
the most
f its in
g end of
us boost
the de
isks and
three-dim
nes. In
mechanical
mit runs
" Ragan
already
commer
this field
been tre

ng really
World War
st known
Polo re
a in the
its chief
of large,
billboards,

lk screen
process.
e on the
wooden
ink was
s design,
on the
e process
done en

ited the
nfamiliar
l instruc
ng came
ad to be
to with
high al
tempora
cals with
wouldn't
y had to
hods and
duction
ually the
operation
ments in

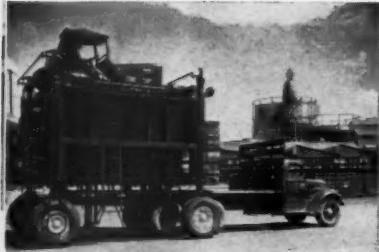
n stencil
e detail
l-special
developed.
new pla
All this

. 20, 1954

ROSS



The most efficient horizontal



PINEAPPLE

During peak season at Dole Hawaiian Pineapple Company, two of these giant Carriers work as a team. They straddle the same highway trailer and remove two 8-ton bins simultaneously in one minute flat.



CONSTRUCTION

Fehlhaber Corp., New York City, covers a radius of 1½ miles between job-site and storage yard with this Carrier. It saves them \$2.50 per ton of steel delivered to elevated-highway job.



RAILROAD

At the Milwaukee Road's Main Shops and General Stores Div., Carriers relieve switch engines and can from the costly job of moving structural steel, poles, drums, etc., through the terminal.



AUTO FRAMES

A. O. Smith Corp. maintains a constant flow of sub-assemblies to their automotive frame assembly line with Carriers. A single man is able to transport 480 tons of material each 8-hour day.



HEAT EXCHANGERS

At a major Southwest refinery, this Carrier teams up with a boom truck to disassemble heat exchangers. The Carrier transports bundles, valves, pipe, etc. on wooden bolsters.



STEEL TUBE

The Gary plant of U.S. Steel's National Tube Div. employs this Carrier to transport billets to and from outdoor storage, and to handle a steady flow of tubing from one manufacturing stage to another.

CARRIER

...the one-truck fleet!

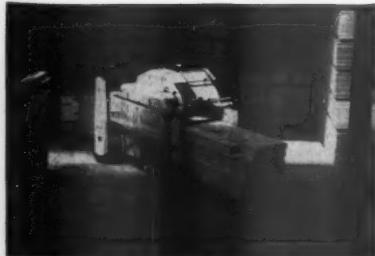
- ... loads itself in 5 seconds
- ... travels at speeds up to 56 mph

In the time it takes a full crew to load a comparable-capacity delivery truck, a Ross Carrier can frequently complete the delivery. Carrier operation is absolutely unique: there's no waiting time for loading or unloading. In 5 seconds the Carrier loads itself and takes off at road speed. You can schedule your deliveries or transportation in advance, then make up all the loads for Carrier pick-up. When the Carrier reaches its destination, it drops the load in 3 seconds and hustles back for the next. Practically perpetual motion for this one-truck fleet!

- ... unloads itself in 3 seconds
- ... capacities up to 50,000 lbs.

Revolutionary as it sounds, the Carrier has proved itself conclusively in scores of industries, some of which are pictured here. In many of these applications, a single Carrier has replaced two or even three conventional trucks. In all applications, no other kind of materials handling equipment could do the job so economically! This phenomenal success should compel you to ask yourself: *How much money can I save by changing or supplementing my present system with the Ross Carrier?* Every cost-conscious company should know the answer.

handling method yet devised!



BUILDING SUPPLIES

Rather than go to the expense of installing a spur track to service an across-the-street warehouse, Carter-Lee Lumber Co., Indianapolis, bought this Carrier; they also use it for street delivery.



SCRAP IRON

Central Iron & Metal Co., Battle Creek, replaced six trucks with two of these Carriers. They handle 30,000 lb. scrap loads in "gondolas" which are left at customers' yards.



COTTON BALES

Four Ross Carriers deliver 15-bale loads to the docks at Corpus Christi from the warehouse of Gulf Compress Company. The Carriers make the 2½ mile round-trip in 15 minutes.



Send for free booklet...

containing illustrated case histories which show Ross Carrier operations in food, steel, scrap iron, petroleum, transportation, metalworking and construction industries.

Send Carrier booklet

Name _____

Firm _____

Address _____

City _____

Ross CARRIER DIVISION

CLARK EQUIPMENT COMPANY
Benton Harbor 42, Michigan

CLARK
EQUIPMENT

UNMATCHED LUBRICANT CONTROL

conpor

gives less leakage, less friction,
longer life, greater economy



SEALS

Whether your application requires starved, semi-starved, or flooded sealing, Conpor provides the exactly right degree of lubricant retention.

STORES

Conpor sealing elements give full-depth lubricant storage—from sealing lip through the entire body.

LUBRICATES

Lubricant is available to the shaft contact area as required. There is no impervious film to endanger lubrication.

Only Conpor gives you a complete range of porosity control

Conpor is not merely leather which has been surface-coated with an impervious elastomer. Conpor is a long-sought series of new and vastly superior materials for lubricant sealing, in which elastomer and leather are combined permanently to produce the exact degree of porosity and lubricity required. Lubrication of the sealing lip is controlled to give longer life and higher efficiency while objectionable leakage is minimized. Conpor is not completely impregnated.

Conpor sealing members are compatible with a wide variety of oils, hydraulic fluids, solvents, and gases. They remain flexible, heat stable, and fully operative for longer periods and at higher temperatures than any similar material. No other sealing material offers Conpor's outstanding advantages, long service life, and low cost.

Let Chicago Rawhide engineers show you how to solve your sealing problems at lower cost—with Conpor.

Get "Report on Conpor" for complete facts, tests, performance charts, modifications and range of applications. Write: A. S. Berens, Chicago Rawhide Mfg. Co., 900 N. State, Elgin, Illinois.



CHICAGO RAWHIDE MANUFACTURING COMPANY

900 North State ELGIN DIVISION Elgin, Illinois

Executive Offices: CHICAGO, ILLINOIS. Representatives in these Principal Cities: BOSTON • NEW YORK • SYRACUSE • BUFFALO • PHILADELPHIA • PITTSBURGH • CINCINNATI • CLEVELAND • DETROIT • PEORIA • MINNEAPOLIS • WICHITA • TULSA • HOUSTON • LOS ANGELES • SAN FRANCISCO • SEATTLE

Other C/R products

OIL SEALS: Shaft and end face seals for all types of lubricant retention and dirt exclusion • SIRVENE (Synthetic rubber) diaphragms, boots, gaskets, and similar parts for critical operating conditions • SIRVIS: Mechanical leather packings and related products.

"... 'we'll print on anything that will hold still for an impression,' says the silk screen industry . . ."

AN OLD ART starts on p. 82

made for higher quality registration and detail—and brought new business in printing orders.

The war also brought about the development of new inks and paints. Fluorescent inks, such as Day-Glo, manufactured by Switzer Bros. of Cleveland and Velva-Glo of Oakland, Calif., suddenly opened a whole new market of advertising. So far, screen process printing is the only process that can successfully use these colors. (Fluorescent paints and inks are not to be confused with luminescent paints. Fluorescents are just many times brighter than ordinary paints, and shine only at night when light strikes them. Luminescent paints store up light and release it in the dark, like the radium dial on a clock.)

• **Chain Reaction**—Photographic methods of reproducing copy—which led to longer production runs—created the demand for faster-drying inks and paints. This in turn created the demand for more mechanization. The first big development was an electric-powered squeegee to push the ink through the stencil. This increased production, but called for faster methods of feeding, racking, and drying. So the next mechanical developments were the automatic feeder and powered "take-off" which removes the printed material automatically. Then this created a bottleneck in drying. Association members at the convention saw what they hope will be the solution to their last problem—mechanical dryers.

• **Versatile**—The industry's self-confidence shows up in the motto it has adopted: "We'll print on anything that will hold still for an impression."

In some ways, at least, that's true. Silk screen can print on concave or convex surfaces, and it prints on any thickness, on rough, slick, shiny, and dull surfaces. And it can lay white color onto black, which most other printing processes can't do.

• **New Uses**—During the past few years, its applications have multiplied. It's used extensively in printing shower curtains and all types of plastic products, such as squeeze bottles. It has also taken over a big hunk of the textile printing that was formerly done with woodcuts and linoleum prints. It's also used in the printing of fine wallpapers and in the reproduction of old masterpieces.

In fine chinaware, silk screen decals are now used instead of hand-painting.

West Penn Electric

can shop for you in a supermarket
of plants and sites in this
29,000 sq. mile 5 State area



We're right in the heart of industrial America. And a number of communities in our area are prepared to make industrial plant locations available to responsible enterprises on very attractive terms—either on lease or lease-purchase.

So just tell us what you're looking for, and we'll do your location shopping for you—in the biggest industrial supermarket in the world. We develop detailed information studies on a confidential basis—with no obligation whatever.

Get on our Business Opportunities Mailing List. Write or phone Area Development Department, The West Penn Electric System, Room 906, 50 Broad Street, New York 4, N. Y. WHitehall 4-3740



**West Penn
Electric System**

Monongahela Power Company
The Potomac Edison Company
West Penn Power Company

West Penn Electric System, Room 906
50 Broad Street, New York 4, N. Y.

Without obligation, please send me a hand-picked assortment of current Industrial Data Sheets on available industrial buildings and sites in your service area.

Name and Title

Firm

Address

City, Zone, State

when your
customers
ask about

LIGHT WEIGHT-

Tell them you have shaved useless pounds off the weight of your product by using a Hackney Deep Drawn Part in place of a heavy cast, forged or welded-pipe part.

Many other manufacturers have done just that—with no sacrifice in strength, durability, or vibration resistance.

In addition, your engineering department can count on Hackney Deep Drawn Shapes and Shells to achieve closer tolerances, smoother contours, seamless construction. Our specialized experience can help you design deep drawn parts in functional shapes to meet your requirements. Write today for additional details.

Typical Hackney Deep Drawn Parts. Can be made in capacities from one quart to 150 gallons, from many metals.



Pressed Steel Tank Company

Manufacturer of Hackney Products

1493 S. 66th St., Milwaukee 14 • 52 Vanderbilt Ave., Room 2097, New York 17 • 207 Henne Bldg., Cleveland 15 • 936 W. Peachtree St., N.W., Room 115, Atlanta 3 • 208 S. LaSalle St., Room 789, Chicago 4 • 555 Roosevelt Bldg., Los Angeles 17 • 18 W. 43rd St., Room 12, Kansas City 11, Mo. 137 Wallace Ave., Downingtown, Pa.

CONTAINERS FOR GASES, LIQUIDS AND SOLIDS



"... but screen printing still can't compete in some fields with high-speed printing methods . . ."

AN OLD ART starts on p. 82

and silk screen processes have been developed to apply gold, silver, and platinum trim on china.

Since the war, millions of people every day consult a screen-printed alarm clock dial, and their car radio may have a screen-printed electric circuit.

The screen-printed electric circuit was developed primarily by electronic manufacturers themselves. Today, about 60 manufacturers use silk screen printing in circuit work, hearing aids, radios, television. It is also being used in electronic equipment for airplanes and electronic missiles. The advantages include tremendous savings in space over the wired circuit, plus savings in time, assembly, and weight. In this connection, the U.S. Navy-sponsored Project Tinkertoy (BW-Mar. 6 '54, p55) uses a silk screen process to print silver on the ceramic wafers that form the electronic building blocks.

Another use is the application of color printed in a hot molten state with a thermoplastic ink, so that the print freezes almost instantaneously. Glass bottle manufacturers are interested in this process, because it would cut printing costs from 50% to 70%. This would help make bottles more competitive with cans in the soft drink markets.

Even television has contributed to the industry's rapid growth. Silk screening is used to print the tiny dots on the face of tubes for color television sets.

• Limitations—If you listen too long to the industry, you might get the idea that silk screen printing may soon push other processes off the map. But there are at least three big fields in which silk screening hasn't gained much footing.

First, the process so far is not adapted to the extreme fine-dot structure for high-quality production of halftone pictures. These are still better done by conventional letterpress and rotogravure.

Second, it hasn't yet made a serious dent in the publishing field. Books and magazines will continue to be printed as they are today for a long time to come.

And third, screen printing still can't compete with high-speed printing methods such as lithography or letterpress in extremely long runs (into the millions). The cost is too high.

ing
some
print-

p. 82

been
r, and
people
d alarm
ay have

circuit
electronic
Today,
screen
ng aids,
ng used
irplanes
advanc
ings in
plus sav
weight.

Navy-
(BW-
en pro
c wafers
building

ation of
en state
that the
aneously.
re inter-
it would
to 70%.
es more
soft drink

puted to
ilk screen-
dots on
television

too long
the idea
ay soon
map. But
fields in
t gained

t adapted
ture for
ftone pic-
done by
rotograv-

a serious
Books
me to be
or a long

still can't
ing meth-
letterpress
the mil-

v. 20, 1954



where there's

ELECTRICAL POWER

With the rapid growth of automation throughout industry,
the dependability of electrical control circuits is more important

than ever. The manufacture of reliable control cable constructions

has always taken a substantial share of Okonite's research and development activities. The most recent development is the new cable design shown at right—a rubber-insulated control cable with a corrugated bronze protective tape. Lightweight, flexible, and of high compressive strength, it is replacing many heavier constructions for direct burial installations and other applications. The Okonite Company, Passaic, N. J.



...there's **OKONITE CABLE**



WORKERS at Rose Marie Reid each perform only one of the 35 or 40 operations involved in putting together the company's

glamor bathing suits. As a result, few of them recognized the finished handiwork until executives staged a fashion show . . .

Introducing Workers to Product



MORE THAN 1,700 employees and friends watched extravaganza, as executives and their wives helped out backstage. The company estimates the show cost about \$1,200.

Day in and day out, Pearl Parker sews the inner bra into Model 481 of the Rose Marie Reid line of bathing suits. But, like most of the 900 other factory employees whose concerted efforts go to glamorizing the feminine figure, Pearl rarely sees the finished product. Even if she happens to leaf through a fashion magazine, she probably doesn't recognize the billed "Court Lady" as Model 478.

Last year, Rose Marie Reid decided that it was high time its employees and end products got acquainted. To break the ice, Jack Kessler, president, staged an all-out extravaganza fashion show such as it presents to buyers and the press. The company didn't know how the idea would go over, but took a chance and hired the swanky Veterans Memorial Auditorium in Culver City, seating 1,700. Came the night of the show, there was standing room only.

Last month, the Los Angeles manufacturer decided to update its employees on its new models, and announced that it would hold a second show. There were 3,000 requests for the 1,700 seats.

The employees got the full treatment, with 19 models, Hollywood commentators, expensive props, and black light staging. They saw 82 different models ranging from \$10.95 to \$35, to an occasional \$75.

RMR credits its employee relations program with helping the company invade a tightly competitive market in 1947 and—starting from scratch—build it to a \$10-million business. But, more important, RMR figured out how to keep the factory operating all year long. It has pushed for an earlier and longer bathing suit season, and gone after new markets such as winter cruises, winter sun resorts, Christmas gift certificates



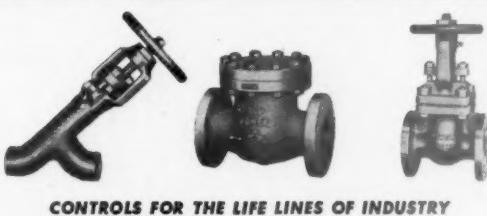
"You see Powell Valves everywhere. And it's...

...perfectly clear why engineers specify Powell Valves. They're dependable! Economical, too! And engineers know Powell has a complete line of valves."

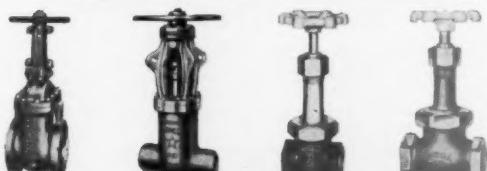
Known since 1846 for dependable flow control

Wherever flow requires dependable control, there's the place for Powell Valves. And Powell can supply just the valve you need, for Powell probably makes more kinds of valves and has solved more valve problems than any other organization in the world.

Available through distributors in principal cities. Made $\frac{1}{8}$ " to 30" and for 125 pounds to 2500 pounds W.S.P. Bronze, iron, steel and corrosion resistant metals and alloys. On problems, see your nearest distributor or write direct to The Wm. Powell Company, Cincinnati 22, Ohio.

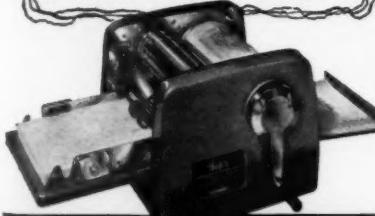


CONTROLS FOR THE LIFE LINES OF INDUSTRY



Powell Valves

108th
year



PRINT hundreds of FAST,
CLEAN **PERFECT COPIES**

- IN MINUTES
- IN 1 to 5 COLORS

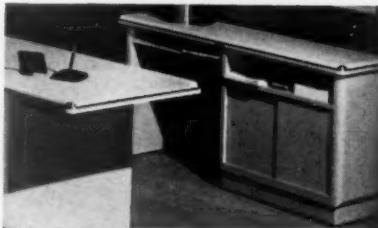
Now, you can make 120 or more copies per minute of anything up to 9 x 14 inches in size — typed, written, drawn, traced or ruled — in 1 to 5 colors. All in one easy, inexpensive operation. The Heyer Conquerors, Manual and Electrically Operated, are the duplicators with ALL the features . . . priced much lower than comparable machines.

Model 70-Hand Operated—\$195 (plus tax)
Model 76-Automatic Electric—\$325 (plus tax)

Write today for FREE descriptive literature and name of your nearest dealer—to:

THE HEYER CORPORATION
1850 S. Kostner Ave., Chicago 23, Ill.

NEW! STEEL MODERNETTES
BY INVINCIBLE



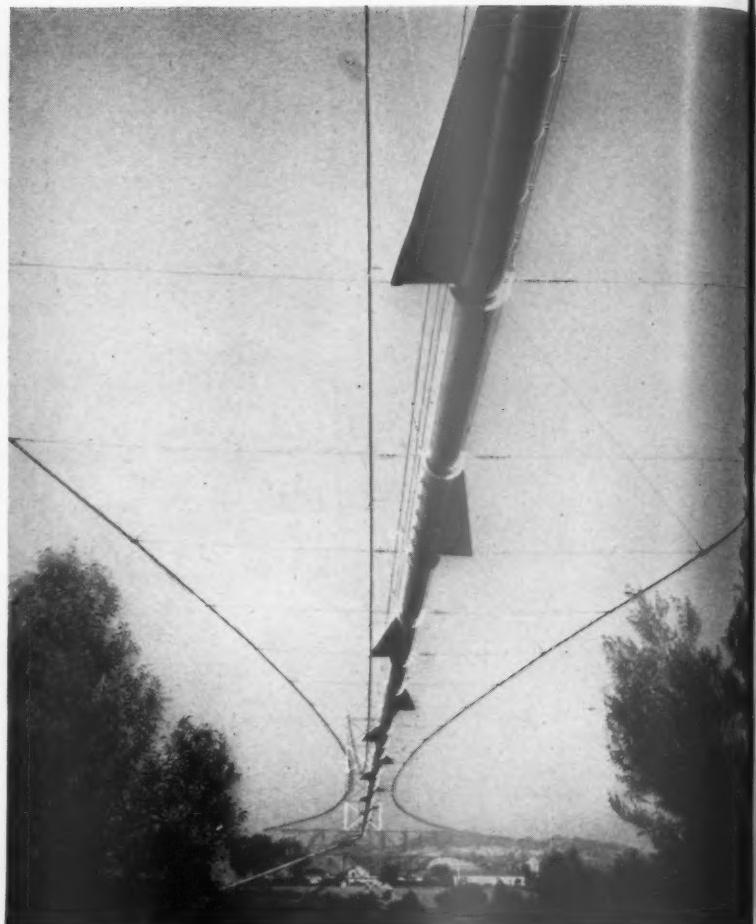
**Bring new BEAUTY, new
UTILITY to executive offices**

Now! Modernize your office with the prestige-building beauty of matched metal office furniture . . . from wall units to desks. Modular design solves space planning problems to the inch. Advanced construction assures lasting beauty and service. Write today for complete details.



Modular planned for unlimited combinations. Available in four colors: Driftwood Tan, Cool Green, Olive Green and Modernaire Gray, for custom decorating.

INVINCIBLE METAL FURNITURE CO.
MANITOWOC, WISCONSIN



Aerodynamic Fins Ground The Bridge That Tried to Fly

The pipeline suspension span above crosses the Colorado River between Arizona and California, carrying East Texas natural gas to Southern California. Earlier this year, however, it threatened to break the 1,200-mi., 30-in. "Biggest Inch" pipeline when it decided to try to fly.

The bridge had been behaving itself, as far as anyone knew, since it was built in 1947-48 as a \$500,000 project. Its daily load of gas had been boosted from 300-million cu. ft. to its capacity of 705-million cu. ft. Every body was happy.

Then one day a fisherman drifting under the 1,853-ft. span happened to look up. What he saw made him nearly jump out of his boat—the welded steel tube was writhing and jumping in its cradle of cables. It wasn't wind that did it—the air was still that day.

• **Rescue Squad**—The fisherman reported the phenomenon. Within

hours, the pipeline's owners—El Paso Natural Gas Co., Southern California Gas Co., and Southern Counties Gas Co.—had a crew at the scene. A mobile laboratory of Fluor Corp., Ltd., engineers, came from Los Angeles.

At first the bridge refused to perform but eventually it staged what became known as the Colorado Can-Can. In great surges of as much as 6 ft. of vertical movement, the pipe oscillated for no visible reason.

• **Cure**—Fluor Corp.'s experts finally pinned down the cause. The pipe acted as an airfoil, responsive to differences in air pressure above and below. Hot air from nearby deserts struck a wall of cooler air over the river and was deflected, some of it striking the pipe broadside.

The cure: triangular metal fins about 30 ft. long attached at intervals along the pipe to dampen the vibrations. It worked.

Your success tomorrow may depend on opportunities today in the new methods, materials, processes taking root in American industry.

Here is a ...

MONSANTO

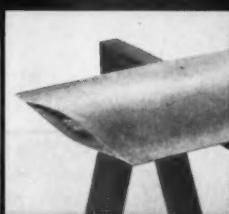
CHEMICALS - PLASTICS

SERVING INDUSTRY... WHICH SERVES MANKIND

Preview of New Ideas New Products New Profits for Industry



New Chip-
core Flat
Panels



Non-sag
Plastic
Sheets



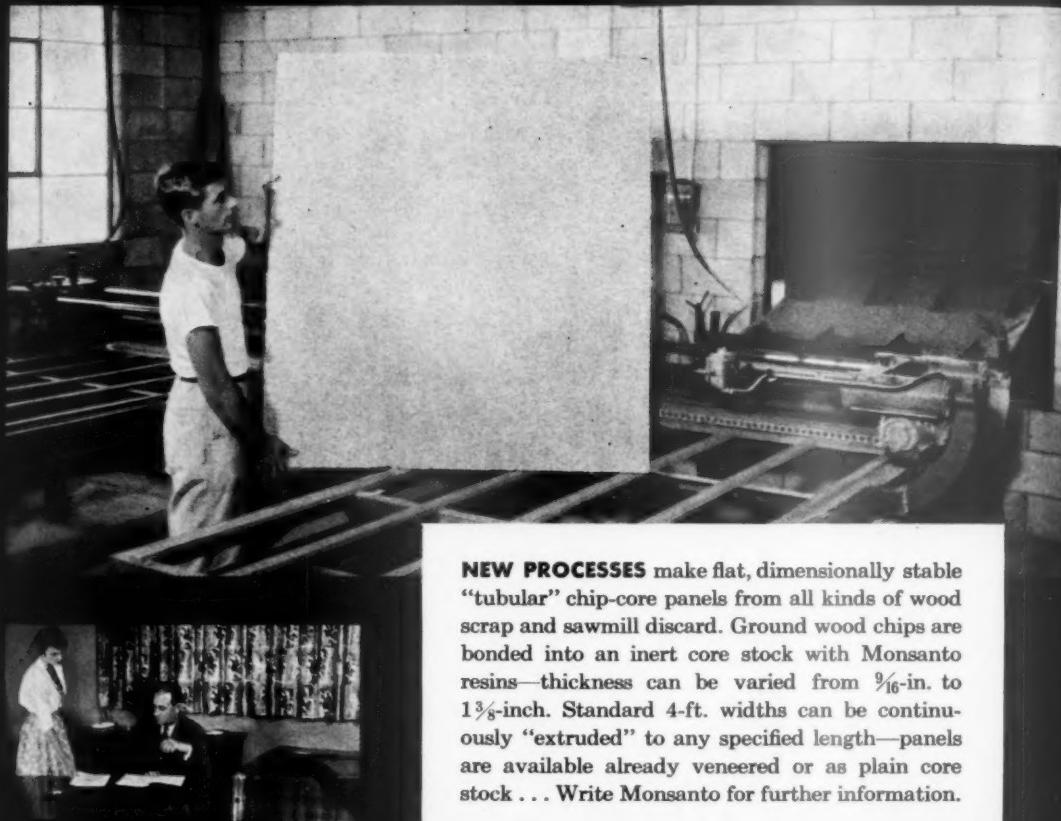
Heat-
formed
Plastics



Molded
Granulated
Wood

MONSANTO
CHEMICALS - PLASTICS

Lowering costs of furniture manufacture, home building



COST REDUCTIONS range from 15% to 40% on flat panels for office furniture, doors, cabinets.



YOUNG HOMEMAKERS will see lower prices. Hardwood veneers, melamine overlays, sheet aluminum, bond readily to the cores.

NEW PROCESSES make flat, dimensionally stable "tubular" chip-core panels from all kinds of wood scrap and sawmill discard. Ground wood chips are bonded into an inert core stock with Monsanto resins—thickness can be varied from $\frac{1}{16}$ -in. to 1 $\frac{3}{8}$ -inch. Standard 4-ft. widths can be continuously "extruded" to any specified length—panels are available already veneered or as plain core stock . . . Write Monsanto for further information.



BUILDERS and pre-fab home manufacturers are impressed with the unusual strength, nail- and screw-holding power of light, "tubular" construction.



HOME DEVELOPERS will welcome savings in framing and insulation with these load-bearing panels—edge-routed to accommodate door and window studs.

MONSANTO
CHEMICALS - PLASTICS

Flat, non-sag plastic louvers open many new product fields

RIGID, "FLAT-SURFACE" plastic panels and louvers can now be produced by a new process (patents pending) available to manufacturers of glass-reinforced plastic sheets. This new method produces lightweight, translucent jalousie louvers; ventilators; garage-door panels and awning sections. Panels are true laminates of glass fiber mats and polyester resins—thin "air sandwiches" expanded with a polystyrene (or aluminum) rod make a slim air foil with high strength and resistance to twist.



SHATTERPROOF JALOUSIE LOUVERS, that fit standard hardware, can be ordered in many sizes, colors. Louvers admit soft, diffused light.



PLASTIC-ALUMINUM GARAGE DOORS—foreseen as a major use—are already available. Doors are light-weight, strong, require no painting.

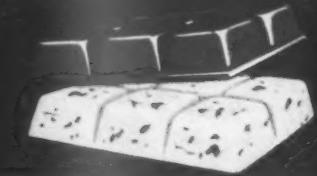
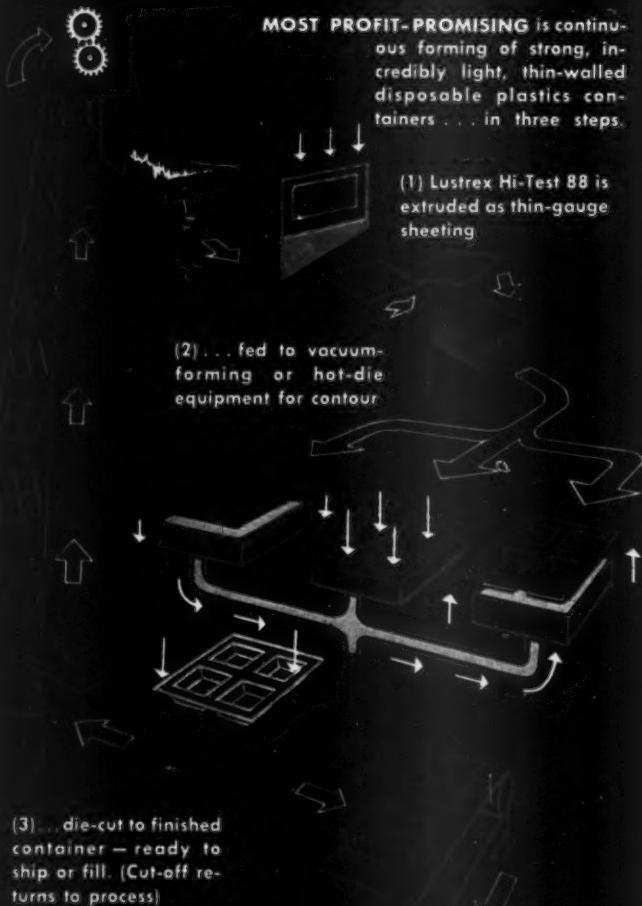
MONSANTO
CHEMICALS - PLASTICS

Disposable plastic packages made by simple heat forming

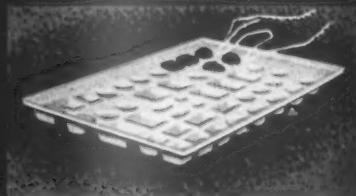


NEW FIELDS FOR PLASTICS! Starting with Monsanto Lustrex Hi-Test 88 high-impact styrene molding powder, thin sheets can be extruded—then vacuum formed or hot pressed to a variety of contoured shapes. Light, strong industrial parts, TV masks, trays, displays and containers are now being rapidly and economically made. Plastic molders can vacuum form or hot-die press "on-order" at a fraction of former tooling costs—start deliveries in days instead of months . . . Write for information.

Lustrex® Reg. U. S. Pat. Off.



INVESTIGATE this process for "portion-molded" ice cream, frozen dessert, gelatin salad containers.



EVALUATE advantages of protective "pocketed" packages for premium candies, fruits, confections.



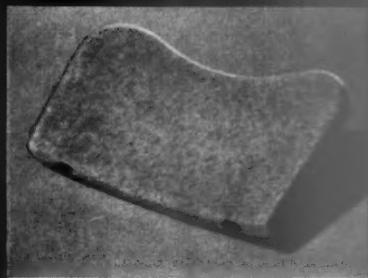
EXPLORE thin-walled, watertight, top-sealed containers for packaging many varieties of frozen foods.

MONSANTO
CHEMICALS - PLASTICS

Molding furniture of granulated wood saves shaping, finishing



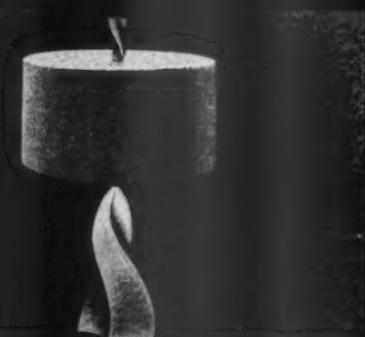
PROFIT FROM WASTE is the three-word story that is opening new product possibilities wherever a large supply of wood scrap is available. Using *coarsely* granulated wood and Monsanto phenolic and melamine resins, wood product plants can produce contour-molded furniture cores ready for upholstering. Furniture makers can convert *finely* granulated wood into dense, smooth-surface products that come "finished" from the mold... Write for more information.



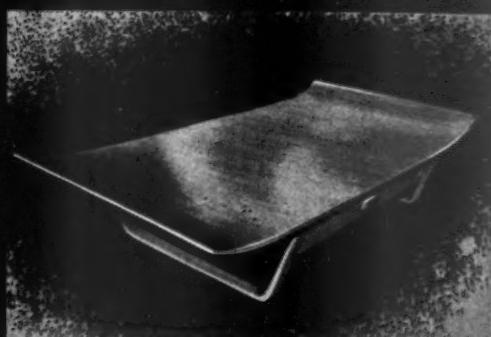
DRILLING the cores smoothly is easy—they have high strength and good screw-holding properties.



SMOOTH, LUSTROUS surfaces are obtained by controlling size of wood particles and resin content.



MOLDING FINISHED FURNITURE is in its early development. Contoured designs such as these can be produced more economically by



molding granulated wood than by any other woodworking method. Write for booklet, "Multiply Profits by Molding Granulated Wood."

MONSANTO
CHEMICALS - PLASTICS

New Opportunities... Through Applied Chemistry



COULD CHEMICALS AND PLASTICS HELP YOUR BUSINESS?

In modern industry, the products of applied chemistry fill countless needs—from processing to packaging. Being one of the world's leading manufacturers of chemicals and plastics, Monsanto can be a reliable source of products and information on chemically made materials that may be new to your business. This new book, "How Applied Chemistry Can Help Your Business," tells why! May we send your copy at once? Write on your company letterhead, or use the coupon. Address Monsanto Chemical Company, Industrial Counsel Dept., St. Louis 4, Mo.

NOTE: When you are evaluating new materials—chemicals or plastics—for new products, quality improvements or cost reduction, you are invited to consult Monsanto. Write on your company letterhead.

Monsanto Chemical Company
Industrial Counsel Department B
St. Louis 4, Missouri

Please send copy of
"How Applied Chemistry Can Help Your Business"

Name..... Title.....

Company.....

Street..... City, Zone..... State.....

MONSANTO
CHEMICALS - PLASTICS

SERVING INDUSTRY...
WHICH SERVES MANKIND

REGIONS

Businessmen, hunting relief from harried, worrisome cities, are finding a relaxed casual life on off-beat West Indies islands like St. Croix or St. Thomas. Low taxes and old-world luxury (right) are some of the reasons why more Americans are . . .



Starting a New Life On an Island Paradise

(Story continues on next page)



ENTERTAINING is informal and inexpensive. Scotch sells for \$21 a case, rum \$8.

RELAXING on the veranda of his 300-year-old St. Croix plantation is daily routine for T. Holland Hunter, former Pittsburgh manufacturer.



UNRUFFLED BEACH and semitropical sun gives Hunter and other American settlers the feeling of comfortable isolation.



SAILING to nearby islands is big sport for St. Croix residents.



BRASS LAMP, found in nearby island ruin, was refinished by Nory Hunter.



DECORATING with old treasures, like this colonial lamp, is fashionable hobby.



SCHOOLS, run by Belgian nuns, rank high; stress studies rather than sports.



MARKETS are tree-covered, sell local lobster for 17¢ a pound, beef 50¢ a pound.

Lif

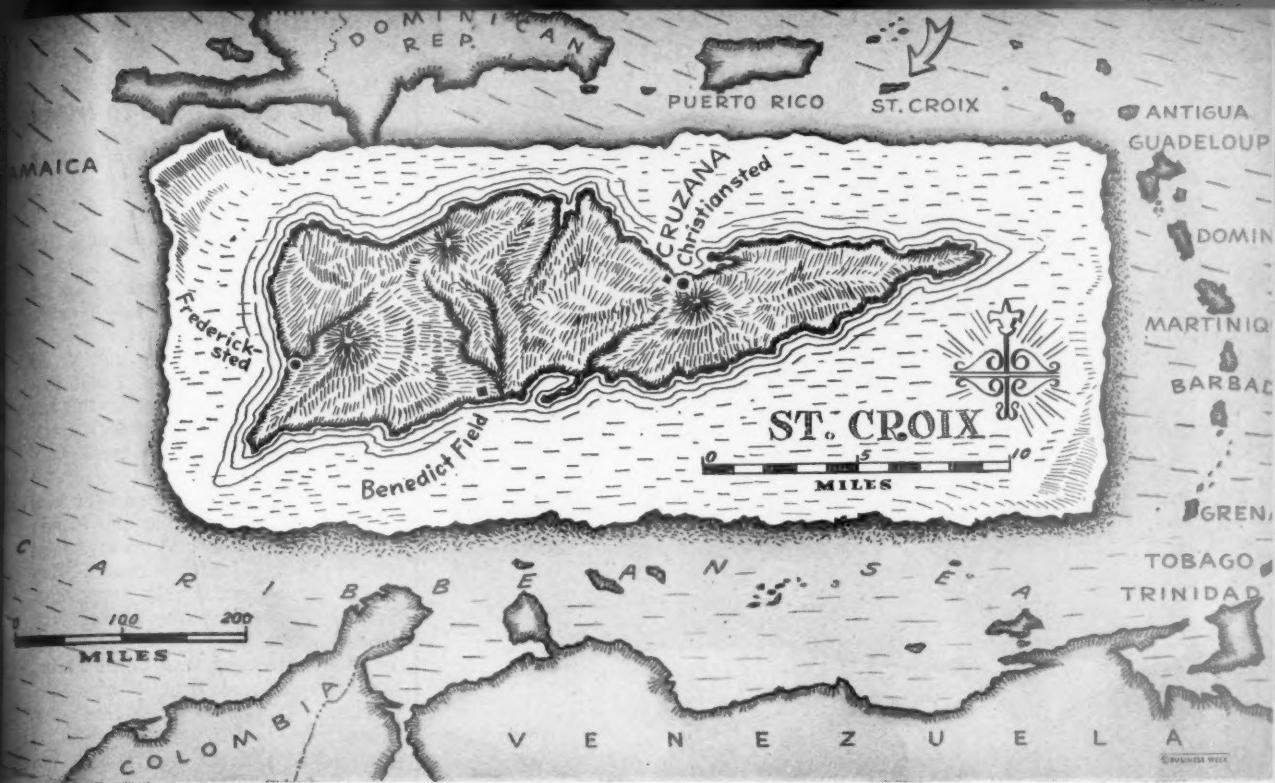
A Ro
with pl
away fro
troubles,
is a dre
nessmen

Until
business
as being
Now, w
and imp
ice, an
the We

An in
men, li
former
Co., are
of living
Hunter
sugar pl
on St.
Islands
cluding
moving
compara
well ove

• Press
a succe
Pittsbu
urban S
frantic s
sure livi
lot on
home h
family.

BUSINES



Life Among the Lesser Antilles

(Story starts on page 101)

A Robinson Crusoe existence (but without plumbing) on a tropical island—away from board meetings, taxes, labor troubles, and government regulations—is a dream shared by most tired businessmen.

Until recently, though, American businessmen had to shrug off the dream as being too impractical, too expensive. Now, with new tax-deduction gimmicks and improved island-hopping air service, an exciting frontier is opening in the West Indies (map, above).

An increasing number of businessmen, like T. Holland (Hod) Hunter, former head of Holland Hunter Mfg. Co., are getting wise to the advantages of living in the West Indies. Last year, Hunter bought a 300-year-old Danish sugar plantation with a "great house" on St. Croix in the American Virgin Islands at a total cost of \$60,000, including mansion, land, remodeling, and moving from Pittsburgh. In the States, comparable property alone would cost well over \$100,000.

• **Pressurized**—Though Hunter owned a successful precision-spring business in Pittsburgh and lived in fashionable suburban Sewickley, he soon tired of the frantic swirl of what he calls high-pressure living. He was away from home a lot on sales trips, and when he was home he was too tired to enjoy his family. He began looking around for a

low-pressure area and a relaxed, inexpensive way of life. At 50, he figured he wasn't getting any younger.

Hunter had never been to the West Indies, but he liked what he had heard of them. When another company offered to buy his precision-spring plant for a good price, he sold out, and the way to the islands was open.

• **Exploring**—Things began to happen fast. The Hunters—Hod, his wife, Nory, and their three boys—flew down to St. Croix, and took a look around. They finally settled on an old plantation, complete with furnishings and five acres of land, overlooking Christiansted harbor. The main house had plenty of room for guests. Walls were 4-ft. thick in places, and in the back yard were ruins of slave quarters and an old mill.

Hunter unearthed these vital statistics about the island: dimensions, 23 mi. by 6 mi.; highest point, 1,165 ft. above sea level; population, 12,096 (mostly colored West Indians); a land running over with tropical fish, doves, turtles (no snakes), hibiscus, orchids, bananas, cocoa, papaya, oranges, limes, and mahogany. In the middle of this paradise is Cruzana, the Hunters' plantation.

• **Provisions**—For food and supplies, the Hunters drive to Christiansted, a short drive from Cruzana. They find food costs quite reasonable, compared

with Pittsburgh prices. Here is a sample shopping list Nory Hunter made: fish (white salmon, red snapper, grouper, bluefish), 20¢ to 25¢ a pound; lobster (crayfish called langouste), 17¢ a pound; beef, lamb, or pork, 50¢ a pound. Vegetables cost about half as much as in Pittsburgh; fruits (limes, avocados, mangos, pineapples) are practically given away; liquor costs \$21 a case for Scotch, \$8 a case for 120-proof rum.

• **Tax Break**—The Hunters found the tax collector much less grasping than any they had known in the States. For one thing, there is no excise tax in the Virgin Islands, and no tax on imports. That alone makes an appreciable difference in the price of things. But there are still bigger breaks for taxpayers:

• There is no territorial or municipal tax on property. In the Revised Organic Act, effective last Sept. 15, Congress provided for a single tax on income.

• Gov. Archie A. Alexander has just signed an ordinance of the Municipal Council of St. Croix (patterned on similar legislation in St. Thomas) that waives 50% of taxes on income from dividends, interest, or capital gains—provided the stocks or bonds are both bought and sold on the island.

So far, there are no brokerage houses in the Virgin Islands, but several large New York firms are in the race to open



**BUT—FOR
GROUP INSURANCE
BOTH PICK
ÆTNA LIFE**

Wood or iron? That's the question — and many a top business executive turned golfer will disagree on the answer.

But when it comes to employee benefit plans, thousands agree on *Ætna Life*. In fact, *more businesses are group insured in Ætna Life than in any other company*.

Working with your insurance broker, an *Ætna Life Group Representative* will gladly show you how a program of life, accident and sickness, or pension insurance can be individually tailored to your needs. You'll be pleased to learn, too, how promptly and efficiently claims are handled. Ask your broker to call the nearest *Ætna office* or write direct to this Company.

**More businesses are group insured in the
Ætna Life than in any other company**

GROUP DIVISION

ÆTNA LIFE INSURANCE COMPANY
HARTFORD, CONNECTICUT



**"... 'we don't have to travel
—interesting people come
to us' . . ."**

INDIES starts on p. 101

shop. For businesses, there are special tax inducements, too. A new business of at least \$10,000 capital is given a waiver of 75% of income tax for 10 years from its founding. Local residents are taking advantage of this law by setting up small cement-block works, construction outfits, and retail businesses.

• **Society**—Hunter also found the local social life as attractive as the island's climate, scenery, and low prices. Almost as soon as the Hunters moved in, they began getting social calls from other settlers: Dick Richards, former New York ad executive; Ward Canaday, head of Willys-Overland, and Clyde Foster, president of Standard Oil (Ohio).

Hunter found the society lively and stimulating—not lazy and clannish, as most island societies are pictured. Another thing: He found his 11-year-old son, Peter, was doing much better in the island school—run by Belgian missionary nuns—than he had done back home in Pittsburgh.

• **Looking Around**—At first, Hunter did nothing but sunbathe, fish, or tinker around his plantation. (He says it takes about four months to "let your nerves sag.") Later, he began looking around for something to keep his time occupied. Hunter believes no executive should "just retire." Then he got the idea of fixing up extra rooms at the plantation, and ended with guest-house accommodations for 12.

In the beginning, these quarters were used only by family friends. Now other selected guests have the place booked for most of the winter. Hunter charges \$7.50 a day in summer, \$11.50 in winter. Accommodations include a suite of rooms (bedroom, large porch, and bath) with breakfast and dinner, and facilities for swimming and island transportation. The Hunters find they make enough out of the venture to maintain the house and servants. Another advantage is the opportunity guests provide for conversation, tennis, and bridge.

"We don't have to travel," says Nory Hunter, "interesting people come to us." The Hunters proudly tell of the time Gloria Swanson spent several days with them as an unexpected guest and provided all the locals with the latest Broadway news.

• **Belonging**—With their guest-house business almost running itself, the Hunters are entering more into island civic life. Hod Hunter was recently elected president of a local business de-



MEASURING IS PART OF *Growing Up!*

Like a fond parent who regularly takes the measure of his child, we at Lion Oil check our corporate growth. It's a way of judging past progress . . . and it can give some indication of future growth.

In the ten-year period, 1944 through 1953, our net income increased more than sixfold; and our net worth per share was more than quadrupled.

And what of the future? Recent developments have paved the way for continued growth. The Company has completed the largest expansion of manufacturing facilities in its history. Our exploration program has developed substantial additional reserves of oil and natural gas for the Company. Petroleum product volumes are up, and Lion's chemical operations have established new manufacturing records.

Meantime, research is revealing interesting possibilities for products which may be developed from raw materials and from waste or by-products of the Company.

Yes, we're proud of our growth . . . proud to be a major factor in the transportation, industrial and agricultural expansion of the South and of the Nation.

KEEP YOUR EYE ON...

LION OIL COMPANY
EL DORADO LION ARKANSAS

A Leader in the Exciting New Field of Petro-Chemistry . . . Producer of More Than 60 Petroleum and Chemical Products for Transportation, Industry and Agriculture . . . and More To Come.

When you're looking for
a material that resists
MOISTURE
AND CORROSION...

micarta is basic!

MICARTA presents a "duck's back" to moisture. It repels continued attacks by corrosive atmospheres. MICARTA resists attacks by physical forces, too. Repeated shocks and vibration will not deteriorate its structure or appearance. Pound for pound its compressive strength exceeds that of structural steel. How can this remarkable lightweight material profit you? Use the coupon for the complete story.

J-06585

YOU CAN BE SURE...IF IT'S Westinghouse



In the Chemical Industry
MICARTA is serving in applications
like pipe and tube couplings,
bubble caps and washers.



Westinghouse Electric Corporation, Trafford, Pa.
MICARTA Division, Attention: L. A. Pedley

- Sir: (Please check one)
- Please have your representative call
- Please send me complete facts
on MICARTA

Name _____

Company _____

Address _____

City _____ Zone _____ State _____

BW-II-20-54

"...no colds, no hay fever,
no asthma—hospital has
little but maternity and ac-
cident cases . . ."

INDIES starts on p. 101

velopment association. Board meetings of the group are usually held at a nearby beach house, where members in shorts and sports shirts discuss their problems, while tradewinds ruffle the papers under their brief cases. Surprisingly enough, a lot of business is transacted in this relaxed atmosphere of the island.

"The manana attitude keeps you healthy and makes you feel good," says Hunter. Temperatures in the islands range from a summer high of 86F to a winter low of 70F. The only uncomfortable time of the year is the September and October rainy season. There are literally no colds, no hay fever or asthma on St. Croix. A new hospital, with local and European doctors, has little business except for maternity and accident cases.

• **Play**—Hunter relaxes by playing tennis, watching schools of multicolored fish while skin diving off the reefs, sailing to nearby Buck Island for weekend picnics, or visiting friends at Fredericksted on the other end of the island. (Names are a holdover from the days when Denmark owned the islands.)

By custom, the whole family attends local club functions and dinner parties. Children go along to play with the host's youngsters because you can't get good sitters. Entertaining, a weekend custom, is generally inexpensive, since servants get around \$20 a month. The one drawback to domestic help: They work only a 4-hr. day.

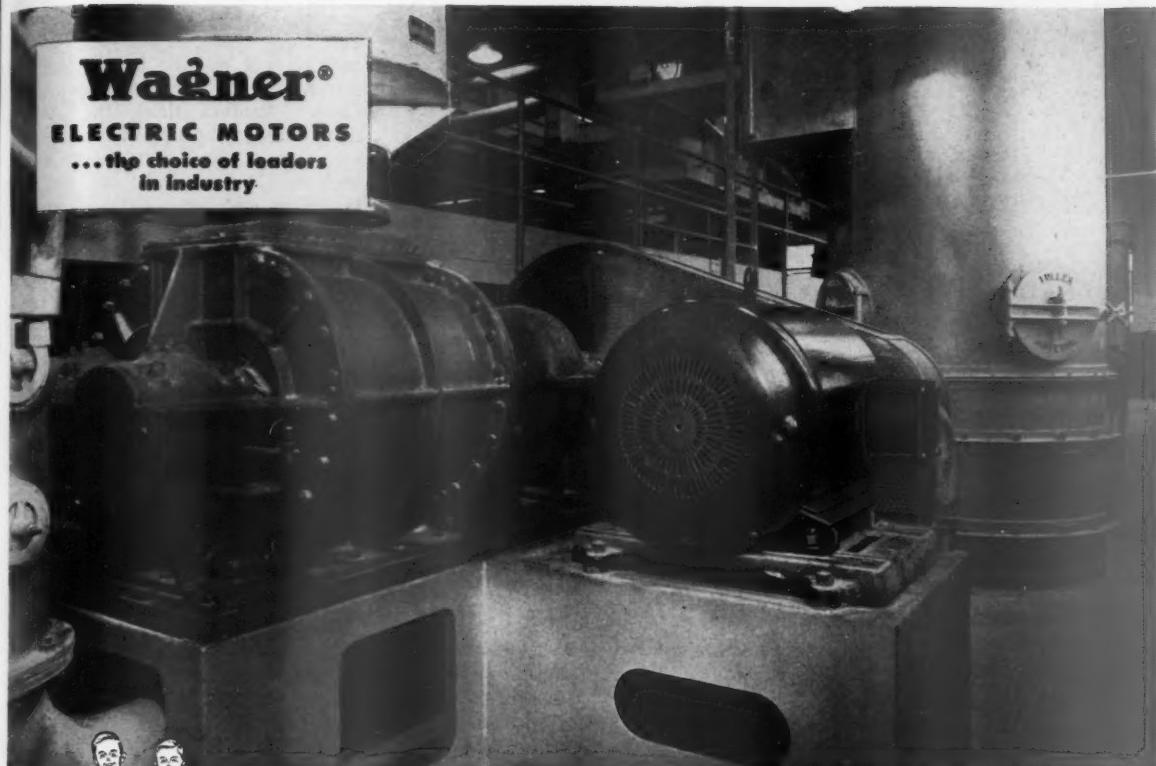
As a rule, weekenders go for a sunset swim, then picnic on turtleburgers (ground turtle meat and herbs), wild pigeon, or lobster.

• **Building**—Since most of the living is out-of-doors, building costs on most of the islands are low—a little more than half of U.S. costs. But fancy building with a lot of imported materials can be very expensive. Though labor is cheap, it takes natives almost twice as long to get a job done. (One of the big building problems: termites.) A two-bedroom cement house with a fronting strip of beach runs about \$12,500. One of Hunter's friends bought and renovated an old Danish mill, plantation, and beach house near Fredericksted for \$21,000. In the States, the same place would likely cost \$80,000.

Building and living costs in nearby British-owned islands are even lower than in St. Croix. An American can live spectacularly for around \$1,500 a

Wagner®

ELECTRIC MOTORS
...the choice of leaders
in industry.



This Wagner Motor drives a pulp-processing machine at the Celanese Rock Hill, South Carolina, plant.



to help mother's budget

Boys are really rough on clothes. But nowadays, thanks to Celanese acetate blends, suits take strenuous wear in stride—and they are not expensive.

Celanese Corporation of America produces this man-made textile fiber in the form of yarn for mixture with other fibers to produce fabrics for many purposes—from draperies to bathing suits.

At the Celanese Rock Hill, South Carolina, plant, Wagner Electric Motors provide the power to drive production machinery. The photograph above shows a 75 hp Wagner totally-enclosed fan-cooled motor driving a pulp processing machine in an atmosphere often filled with pulp fly. The photograph at right shows two 150 hp Wagner cast-iron frame motors that drive brine pumps in an acid area of the plant.

These applications are typical examples of specialized requirements met from the complete line of Wagner standard motors. Whatever your motor problem, Wagner has the *right* answer. Let a skilled Wagner engineer discuss your needs with you. Call the nearest of our 32 branch offices, or write us.



Wagner totally-enclosed fan-cooled motors are fully protected against damage from dust, dirt, fumes and moisture. Cast-iron frames offer extra protection against corrosion.



BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

WAGNER ELECTRIC CORPORATION
6460 PLYMOUTH AVE., ST. LOUIS 14, MO., U.S.A.

ELECTRIC MOTORS
TRANSFORMERS
INDUSTRIAL BRAKES
AUTOMOTIVE
BRAKE SYSTEMS—
AIR AND HYDRAULIC

THE PACKAGING NEWS FRONT



The New York manufacturer of a "fold-away" metal-frame laundry basket has found, in special Bemis Multiwall Paper Bags, an economical consumer package that also gives him a strong, sales-building display.

The maker's sales message and illustration are colorfully printed on both sides of the bag, so that the printing is at work no matter how the packages may be stacked or displayed in the store.

Labor required for packaging the baskets in Bemis bags is substantially less than for wrapping or packaging in cartons.

Printers and business firms that need to store limited quantities of many different printed forms may learn a lesson from a Chicago company that specializes in printing diplomas. It has developed an economical and efficient method of packaging printed stock for storage.

This printer usually contracts with a school to provide diplomas for a period of five to ten years. Since many of the several thousand schools he serves are small, it is necessary to print each school's entire estimated supply at one time, imprinting each year's requirements as needed.

Previously, the several thousand lots were wrapped for storage, necessitating unwrapping and re-wrapping each year. The printer took his problem to Bemis packaging specialists and at their suggestion, switched to durable Bemis Multiwall Paper Bags, which he staples for a dustproof closure. Now he opens the stapled end, removes the needed diplomas and re-staples the bag.

The bags last for many years and there is a substantial annual saving in labor.

Whether you need a package that will increase sales, give better protection to your product, or simply save you money . . . or if you are interested in other of our new developments . . . consult us. Bemis products meet an astonishing number of commercial and industrial requirements. You may want Bemis engineers to create a new package or to advise you on packaging methods. Please write us.

Bemis



408 D Pine Street
St. Louis 2, Mo.

year on Tortola, Antigua, or Dominica. His house will cost less than \$5,000, and he will be able to get food and servants much cheaper than at St. Croix. Another thing that attracts Americans to the British islands is the low cost of land. On some islands, such as Dominica, you can buy land for \$5 an acre, compared with upwards of \$500 an acre on St. Croix.

• Preferences—Hunter maintains you have to shop around the islands for the best buy. No two islands are alike. Some Americans, who like a clubby party-life atmosphere, choose St. Thomas, where living is faster and prices considerably higher. Antigua, Grenada, and Dominica are off the beaten path, and have plenty to offer a person with a small fixed income. The one drawback to living on British islands is the problem of transferring capital—you can take money in, but you can't take it out. In addition, starting up a small business is more difficult than on an American island.

Sweeping farther south in the island chain called the Lesser Antilles, an island shopper can find scores of tropical hideouts: Barbados (England with palm trees), Tobago (Defoe's model for the Crusoe story), St. Vincent and St. Lucia (both British).

• Getting There—Improved air service to all of these islands is the main reason for their increasing popularity. By the same token, the difficulty of getting reservations on island-hopping flights, especially in the rush season for tourists, is one of the major drawbacks to settling there.

From New York to St. Thomas with a change of planes at San Juan, Puerto Rico, is quick and inexpensive, however. First-class fares start at \$109, tourist-class at \$73. Pan American and Eastern fly several trips a day from New York to San Juan, 6½ hours for the 1,600 miles; Eastern also flies from Miami, and Delta-C&S has flights to San Juan four days a week.

Among islands, you have to depend on Pan Am, Caribbean, and British West Indian Airways for transportation, by Convair or DC-3. A couple of islands can be reached by air only by amphibian planes that operate infrequently. Such islands seem to Americans to be a long way from home. Some settlers like it that way.

• The Good Life—"You begin to form a delightful pattern of living out here," says Hunter. "Most of us spend maybe 11 months of the year on our island, then take a short vacation to the States for a football game, a visit with relatives, or a shopping and business jaunt.

"Out here, we work leisurely during the morning, take a siesta in the afternoon, and enjoy our family and friends in the evening. You just can't beat it for a full life."



MANY HAPPY RETURNS*

—that cut typing costs

To return the carriage on an IBM Electric Typewriter, a typist merely touches the return key. Electricity does the rest.

This simple operation—which the average typist performs 268,000 times a year—requires 400 times less energy* than returning the carriage on a manual typewriter!

Increased typing production—and a happier typing staff—result.

IBM
TRADE MARK

electric typewriters

... less work per word

*By actual mechanical measurements of inch ounces of energy for the carriage return operation.

REGIONS BRIEFS

Oklahoma may get the fourth newsprint mill in the South. According to local banks, land is being purchased for a mill in the southeastern forest section of the state. The Southern Newspaper Publishers Assn. is rumored to be one of the interested parties.

A \$1-million project under way in Portland is boosting Maine into the New England financial world. The First Portland National Bank, Union Mutual Life Insurance Co., and Maine Bonding & Casualty Co. are building a downtown office building and converting a hotel into another office building, with a 14,000-sq.-ft. parking space behind both.

Steamer service between Hawaii, Samoa, and Tahiti will be resumed in 1956 for the first time since World War II, with two new \$40-million passenger ships being built by Matson Navigation Co. The new liners will also take on the routes between California and Australia.

Tennessee is getting another hydroelectric power dam. Aluminum Co. of America will build the dam on the Little Tennessee River at Chilhowee Site. Specifications: 82 ft. high; 1,400 ft. long; capacity, 70,000 hp. Cost: \$10-million.

Lake Michigan will finally get another filtration plant. Chicago fought a citizens' group (lake front property owners) up to the U.S. Supreme Court for the right to build the \$96-million project. Engineers got the go-ahead when the court refused to review an Illinois Supreme Court ruling.

Washington state will have to construct 340 elementary schools, 82 junior high schools, and 64 senior high schools by 1960, according to a survey made by the State Dept. of Public Construction. Research was done by 9,500 volunteers in school districts throughout the state.

Uranium in Texas: A new Houston company (Universal Service Corp.) claims it has struck a large uranium deposit. The strike was pinpointed to a 30,000-acre spot in the Big Bend country in Brewster County.

The New York state thruway is pepping up business along its right of way, according to Thruway officials. So far, they say, \$150-million of private buildings have been started, finished or planned within the last four years. New construction is expected to provide jobs for 30,000, with an annual payroll of around \$100-million. The road connects Buffalo with the New York City area.

one of millions

When Torrington produces an order of small precision metal parts — by the hundred or the million — each is identical in temper, hardness and finish, and to the tolerances you require.

Torrington has the equipment and experience to do the job faster, better and for less than you can yourself. Send a sample part or blueprint for our quotation. Ask for our Condensed Catalog showing typical parts we can produce for you at significant savings.

THE TORRINGTON COMPANY
Specialties Division
5 Field Street, Torrington, Conn.
Makers of Torrington Needle Bearings

TORRINGTON SPECIAL METAL PARTS

Vitro

SERVES INDUSTRY AND GOVERNMENT TODAY WITH TOMORROW'S TECHNOLOGY

VITRO MANUFACTURING COMPANY
—ceramic colors, chemical products

VITRO URANIUM COMPANY
—uranium ore processing

VITRO RARE METALS COMPANY
—refining and recovery

VITRO LABORATORIES
—chemical and physical research, process and system development

VITRO ENGINEERING DIVISION
—design, engineering, construction management, plant operation

Vitro
CORPORATION OF AMERICA
261 Madison Ave., New York 16, N.Y.



A
B
C

3 reasons why calendars win free wall space

- A. A beautiful picture by a famous artist that adds colorful decoration to her home.
- B. A dignified message which advertises your products or services daily.
- C. A calendar as useful as her kitchen clock, functional as her memo pad or market list.

Like a well-balanced TV program, the ABC's of Shaw-Barton calendars provide beauty, humor, entertainment plus helpful recipes by Demetria Taylor . . . an advertising attraction which makes your "commercial" more valuable when the homemaker is in the mood to buy. But like no other advertising medium, your Shaw-Barton "Show" keeps on selling her 365 days a year. A good buy? Ask our representative, or write for full information.

SHAW-BARTON

Calendar and Specialty Advertising
GENERAL OFFICES AND PLANT, COSHOCOTON, OHIO
SALES OFFICES IN PRINCIPAL CITIES

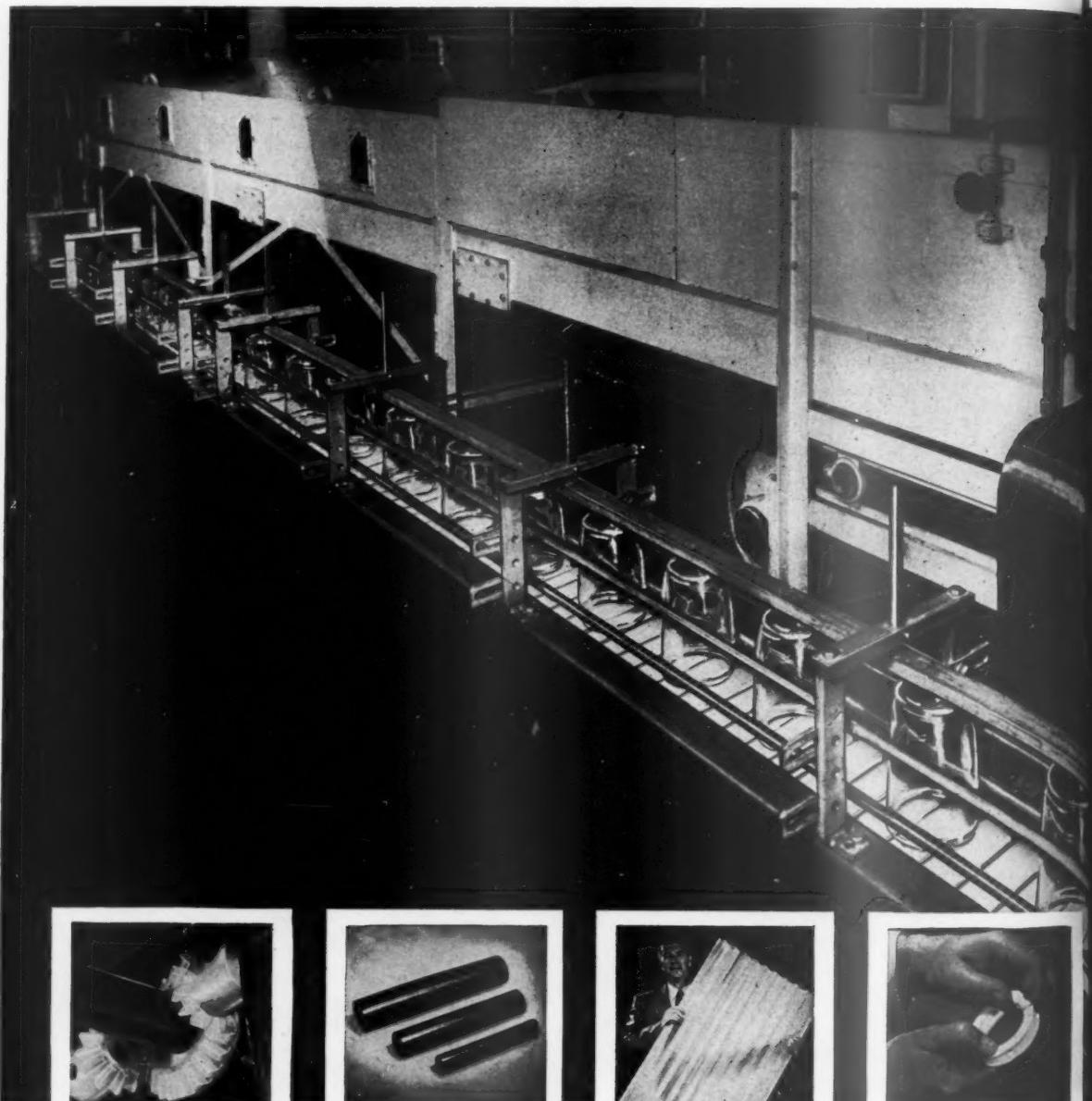


Why sell 1 Portland? Sell 6 with Nation's Business

Do you sell businessmen in Portland, Oregon? Maybe Portland, Maine, too? Good. So does Nation's Business, handsomely. But why stop here? There are at least 6 Portlands worth selling in the U.S.A. Nation's Business gives you them *all*, just as it gives you *all* the 13 Springfields on the map, *all* 11 Washingtons . . . the bigger cities as well as the 16,340 important business markets under 25,000 population . . . the "profit-areas" that do 40% of all manufacturing, handle 30% of all business transactions. Here Nation's Business among executive magazines is boss with 449,767 businessmen subscribers, 60% of its circulation. *You cover ALL the business market when you buy Nation's Business.*



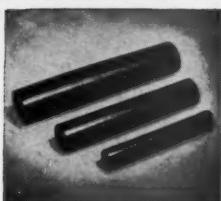
How parts of "ZYTEL"ny run quietly, need no



Note the lined surface chain links. "Zytel" nylon is excellent abrasion-resistant. It does not scratch by the chain. It is manufactured in Chicago, Illinois, in operation in Chicago, Illinois, and Plastic Products Company, New York.



ZYTEL®nylon resin is a versatile Du Pont engineering material for mechanical applications. Parts made of it are strong, resilient, and lightweight. Often they require no lubrication. Parts of "Zytel" can be economically mass-produced by injection-molding or extrusion. Pictured are pinion and drive gears for a textile machine.



ALATHON® polyethylene resin has good chemical resistance and excellent dielectric properties. "Alathon" is tough and flexible over a wide range of temperatures. Freedom from odor, taste, and toxicity makes it an ideal packaging material. Shown is corrosion-resistant pipe that's widely used for farms and industry.



LUCITE® acrylic resin is used to make products that are both functional and decorative. Beautiful as well as functional, it is produced clear and in color. Products of "Lucite" are shatter-resistant, have good dimensional stability and possess excellent resistance to weathering. This lighting panel is extruded "Lucite."



TEFLON® tetrafluoro-ethylene resin is suited for use under severe service conditions. No chemicals normally found in industry attack it. "Teflon" can be used in a service temperature range of -450°F. to 500°F. "Teflon" is ideal for electronic applications. Flexible seal cages for process equipment are pictured here.



BETTER TH

...TH

zyl" is the ne

'Nylon resist abrasion, no lubrication

**Conveyor chain links of "Zytel"® nylon
eliminate oil contamination . . . are
lightweight, resilient, and long-wearing**

New conveyor chains, made from links molded of Du Pont "Zytel" nylon resin, assure long service life, and low maintenance costs.

The properties of Du Pont "Zytel" nylon resin which make this man-made engineering material so useful to the design engineer are pointed out by this application.

Conveyor chains of "Zytel" run without lubrication, saving the cost of lubricants, and eliminating this source of possible contamination. The "Nylite" chain is easily sterilized, and is a non-conductor of electricity.

Power costs are cut too. Tests made by the manufacturer show that the conveyor belts of lightweight "Zytel" carry, with one-fifth to one-half the chain pull, a load carried by comparable, lubricated steel chains.

Noise is reduced by quiet-running "Zytel," and products are not scratched by contact with the resilient links of Du Pont "Zytel" nylon.

Parts made of "Zytel"—gears, cams, links for example—can be mass-produced efficiently and economically by the injection molding process.

Have you investigated the unique properties of "Zytel" nylon and the other members of the Du Pont family of engineering materials—"Teflon" tetrafluoroethylene resin, "Alathon" polyethylene resin and "Lucite" acrylic resin? The applications shown here are typical product improvements—possible when design and service requirements are evaluated in terms of the properties of these versatile engineering materials. For further information on their properties and uses, clip the coupon below or write to E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Department, Room 3311, Du Pont Building, Wilmington 98, Delaware.

E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Department
Room 3311, Du Pont Building, Wilmington 98, Delaware

Please send me more information on the Du Pont engineering materials checked: "Zytel" nylon resin ; "Alathon" polyethylene resin ; "Lucite" acrylic resin ; "Teflon" tetrafluoroethylene resin
I am interested in evaluating these materials for _____

Name _____

Position _____

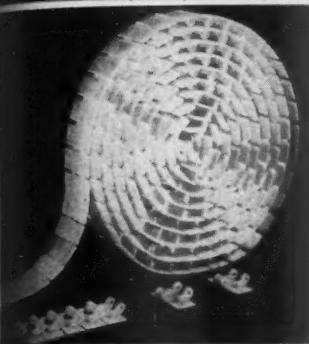
Firm Name _____

Type of Business _____

Street Address _____

City _____

State _____



Note the smooth, easily sterilized surfaces of these conveyor chain links molded of Du Pont "Zytel" nylon resin. They have excellent abrasion-resistance and run quietly. Resilient links of "Zytel" do not scratch products conveyed by the chains. The conveyor chain is manufactured by Fenco, Inc. of Chicago, Illinois, and is shown in operation at the Kraft food plant in Chicago. Links are molded of "Zytel" nylon resin by Du Bois Plastic Products, Inc., Buffalo, New York.

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

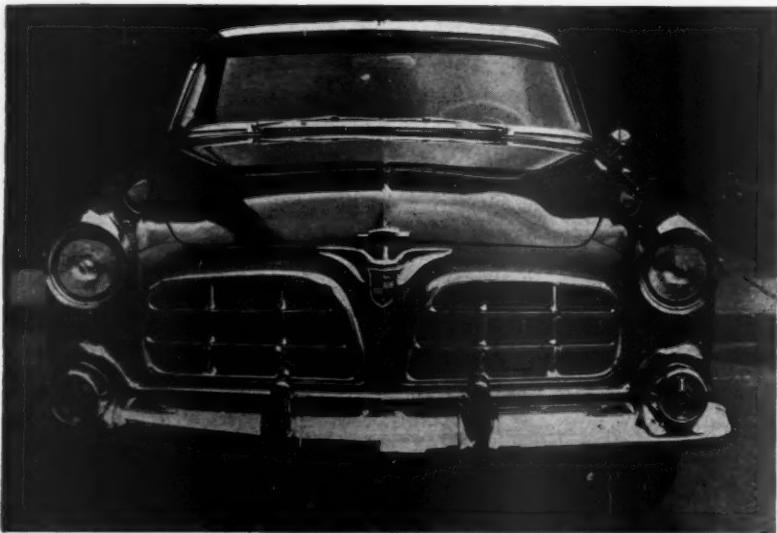
"Zytel" is the new trade-mark for Du Pont nylon resin

MARKETING

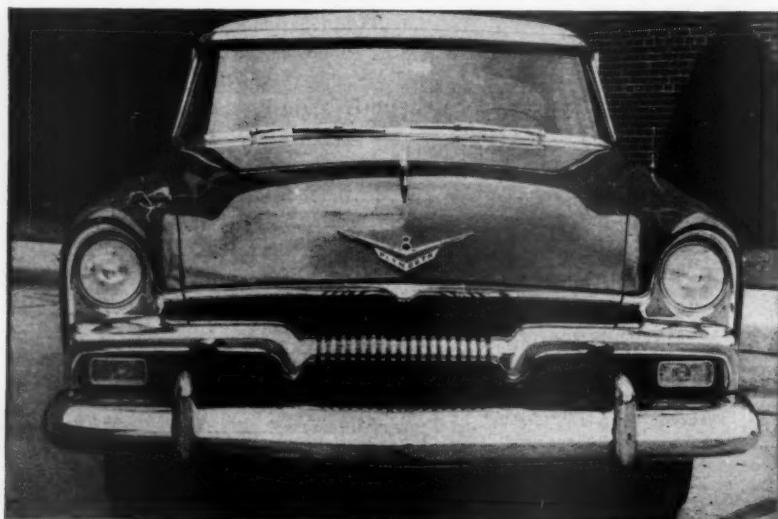
The parade of restyled cars from Chrysler Corp. factories has begun. The corporation has sunk \$250-million in the changeover, and an estimated \$15-million to promote the new lines. The goal: a full fifth of the automobile market.



Chrysler's Recipe: Five New



THE IMPERIAL, a full-fledged line at last, is the queen of the Chrysler Corp. fleet. It's longer, lower, and sports a 250-hp. engine.



PLYMOUTH, the low-price entry, shares with Dodge the title of most-radically restyled. It offers a 6-cyl. engine, or any one of three V-8s, and a wraparound windshield.

If you can see or hear, you would have had a hard time the past fortnight escaping the news that Chrysler Corp. this week is introducing a line of completely restyled automobiles for 1955.

If it has escaped you, then Chrysler has wasted its biggest-ever spending to launch a new model—an estimated \$15-million.

There's a good reason behind Chrysler's more than normal effort. Among its rivals, Chevrolet over the past year had style problems (BW—Oct. 30 '54, p44), but its market held up because the sales organization was strong. Ford had production problems (BW—Nov. 13 '54, p82), but its market, too, held up because it had a good sales organization. For its part, Chrysler has had problems for both style and sales. It has a sound product, but its car sales for the first nine months of 1954 were less than two-thirds of the 1953 period.

• **New Leaf**—For 1955, Chrysler thinks it has cars with style (pictures). It has a revitalized dealer organization, with plans to keep it alive and growing. And there's a sales promotion program that has taken advantage of just about every medium:

• A lavish press preview early last month not only brought in writers from all over the country, but also placed notable stress on women's and fashion magazines. The presentation emphasized style—Chrysler's chief shortcoming in 1954.

• An employees' open house in advance of the public showing drew 30,000 people to the Plymouth plant in Detroit. Among the invited guests: salesmen of competitive makes. (Just possibly Chrysler hoped to lure some good salesmen into dealerships.)

• A 12-page, four-color ad appeared this week in *Life*, *Look*, *Collier's*, and the *Saturday Evening Post*.

• Dealer shows were more elaborate than any in Chrysler history. For example, Dodge Div. offered a 16-city tour of a musical play with 10 professional performers and an orchestra.

• In
has plants
30-min. sh
featuring p
ler radio a
by Pres. L

• The
vertising is
The appr
cent of th
nearly 30
mouth to
The origi
Chrysler l
of a Plym
"Tex" C
fender of a

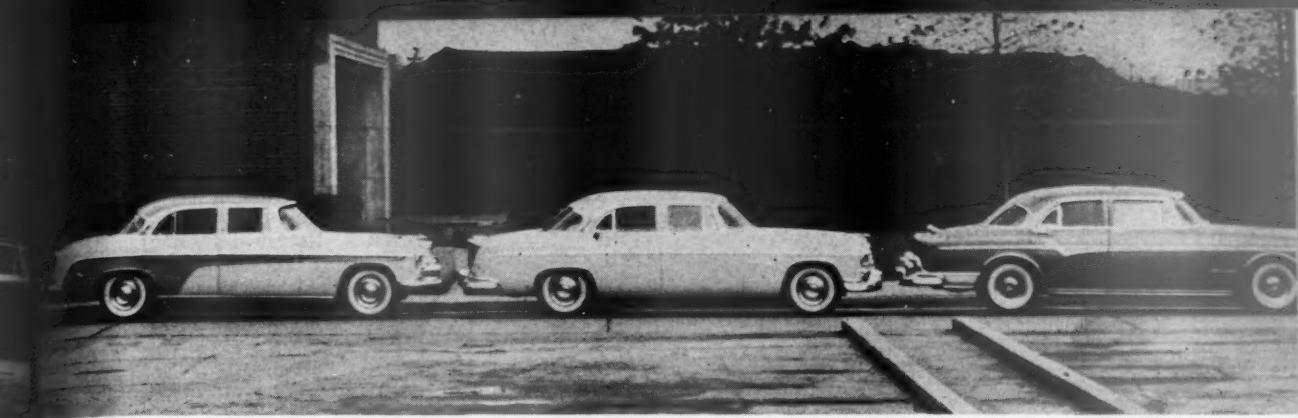
• Dealer
Chrysler c
men—will
does not
get people
is up to
right her
organization
made its
moves. T
Charles
sales, and
ager, deal

The co
the adm
Loyalty a
stored wi
has been
salesmen
existing o
this had
past that
forget—ex
"whatever
used as a

I. The

In 195
cars and
before. Y
Good Fri
extraordin
hotel. Re
througho

BUSINESS



New Lines and Happy Dealers

• In seven cities where Chrysler has plants, commercial TV carried a 30-min. show for employees. The show featured performers from the six Chrysler radio and TV programs, plus a talk by Pres. L. L. Colbert.

• The budget for newspaper advertising is 16% higher than last year's. The approach is deliberately reminiscent of the "look at all three" ads of nearly 30 years ago, which helped Plymouth to vault into a top sales spot. The original ad showed Walter P. Chrysler leaning on the front bumper of a Plymouth; the present series shows "Tex" Colbert leaning on the front fender of a 1955 car.

• **Dealer Comeback**—With all the fuss, Chrysler officials—as well as other auto men—will tell you that advertising alone does not sell cars. What it can do is get people into the showrooms; the rest is up to the dealer organization. And right here—in strengthening its sales organization—is where Chrysler has made its most significant comeback moves. The drive is spear-headed by Charles L. Jacobson, vice-president, sales, and Richard W. Shanklin, manager, dealer enterprise (pictures).

The company has completely changed the administration of its sales efforts. Loyalty and enthusiasm have been restored with the dealer body. A program has been launched to enable capable salesmen to establish dealerships, and existing dealers to expand. Why all this had to be done lies in a painful past that Chrysler would just as soon forget—except, in Jacobson's words, that "whatever has gone before can only be used as a lesson for the future."

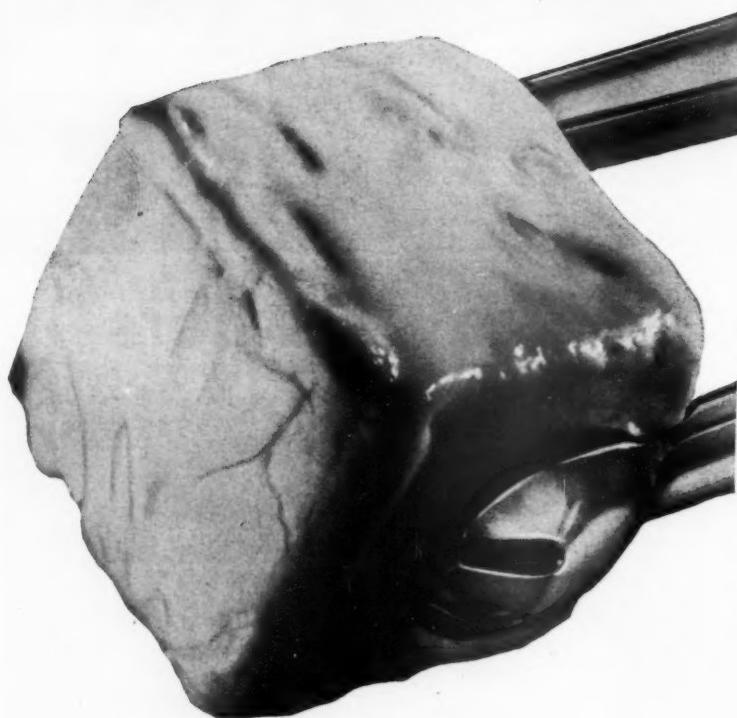
I. The Dealer Revolt

In 1953, Chrysler Corp. sold more cars and made more money than ever before. Yet within a few months—last Good Friday, to be exact—there was an extraordinary meeting in a Detroit hotel. Representatives of Dodge dealers throughout the country peremptorily



"HUMANNESS doesn't cost anything." So says Vice-Pres. C. L. Jacobson (left), who with Richard Shanklin, the manager of dealer enterprises, sparks Chrysler's drive to restore dealer confidence.

THIS IS A CUBE OF



Frozen Wood Glue

It shows how a resin product has licked old man winter.

This cube of resin glue was frozen in an ice tray. Then thawed. Not once; but twice—without any loss of strength or any working properties.

This is good news for the woodworking industry.

Usually, vinyl woodworking glues are ruined by freezing. Others lose up to 75% of their strength.

Today, National's WOOD-LOK® 3026 can be shipped through any kind of weather and stored in frigid warehouses without damage.

Showing again what imaginative resin research can do.

STARCHES  ADHESIVES
RESYNS®

National Starch Products Inc., 270 Madison Ave., New York 16, N. Y.

summoned the top Chrysler officials. They demanded that the price of can be cut at once, and that the dealers be permitted to send a representative to the next meeting of the Chrysler board.

The corporation said "no" both times. But it did some severe soul-searching, because the "Good Friday revolt" climaxed a period of dealer dissatisfaction the like of which Chrysler had never experienced. Officially, Chrysler people blamed the dissatisfaction on only one thing: The dealers were not making money. But Jacobson, who took over the top sales spot last June, implies another reason: The corporation had lost the human touch in relations with dealers.

"Money doesn't talk," Jacobson says. "Personal feeling is much stronger than money; if a man is mad he will do things that affect his pocketbook." (There's a widespread opinion in the industry that until this summer few Chrysler-line dealers really tried hard to sell—they were too mad at the corporation.)

- **Losing a Touch**—In retrospect, it's easy to see how the human touch could get lost. In the Chrysler setup, the vice-president, sales, made all major decisions and directed the divisional sales managers. He had no time to devote to dealer problems.

About a year and a half ago, when Chrysler began to decentralize (BW-Mar.27'54,p42), the divisional sales managers were given autonomy. The corporation sales vice-president now gives advice and suggestions to the divisional presidents—not the sales managers. "The central office has strong influence," explains Jacobson, "but not direction over sales."

This system was just starting to function when the bottom fell out of Chrysler's market late in 1953. Chrysler, expecting the market to hold up, opened its 1954 model production at a high level. With Ford and Chevrolet selling price and between them sweeping up 60% of the market—while the public was deciding that Chrysler-built cars were unstylish—the Chrysler-line dealers soon found themselves loaded with cars. Production was cut back but the damage had been done. Dealer tempers rose as sales fell.

• Fast Slide—For the first nine months of the year, Plymouth sales fell about 32% below the 1953 period; Dodge sales were off 51%, De Soto 38%, Chrysler 36%. The most severe drops came in the first part of the year. Corporation officials barked at the dealers, and the dealers barked right back.

"It's awfully easy to be critical," Jacobson says. "But we stopped that. We began to say 'let us'—not 'you' but 'us' do something about it, admitting we were at fault, too."

• For the Company, Too—The corpora-



Three cents isn't much

But the price of a postage stamp may help to solve your plant location problems.

Write to the Norfolk and Western and outline your requirements. Without delay and in strict confidence, our plant location specialists will call on you or send you complete information about plant sites

in *The Land of Plenty* which may be ideal for the operation you plan. Their assistance will cost you nothing.

Whether you're thinking about a small plant or a large one, it will pay you to investigate *The Land of Plenty*. Just write:

INDUSTRIAL AND AGRICULTURAL DEPT.
Drawer B-652 (Phone 4-1451, Ext. 474)
NORFOLK AND WESTERN RAILWAY
ROANOKE, VIRGINIA



The Land Of Plenty offers many superior industrial advantages, including home-rooted manpower, nearness to Bituminous Coal, nearness to markets, and dependable N & W transportation.

Transportation is a major factor in good plant location. Consult your traffic manager when you're choosing a plant site. He's a transportation expert.

Norfolk and Western
RAILWAY

HAMMERMILL BOND

1. Looks better
2. Types better
3. Prints better

No wonder more business today
is done on Hammermill Bond
than on any other office paper

Look through your mail tomorrow morning. See how many letters carry the "Hammermill Bond" watermark! For leading businessmen prefer it today — as they have for 42 years. They like its brilliant blue-white look, its crisp, substantial feel. They know letters typed on Hammermill Bond are neater, easier to read. Erasures are barely discernible. They've found printing is sharper, clearer, and economical to produce.

No wonder Hammermill Bond adds favorable attention value to any letter-head or printed business form! Why not try it — and see for yourself?

You can obtain business printing on Hammermill Bond wherever you see the Guild shield on a printer's window. The Guild shield Company, Erie, Pennsylvania.



BELLONE MARINE AIR COMPANY

HAMMERMILL BOND
FOR OVER 40 YEARS...
AMERICA'S MOST USED BOND PAPER

UNITED STATES FIDELITY AND GUARANTY COMPANY
BALTIMORE 3, MARYLAND

tion could certainly show the dealers that they weren't alone in trouble. Two weeks ago, it revealed the full effect in its nine-month financial report. In the third quarter, for the first time since the first quarter of 1950 (when plants were shut down 103 days by a strike), Chrysler lost money—the huge sum of \$12-million. For the nine months, the profit was only \$3.7-million on sales of more than \$1.4-billion. In domestic operations alone, the profit was a bare \$135,000.

The third-quarter figures reflected the cost of model change and the long down-time more than they did a drop in sales. But if sales had been higher earlier in the year, the nine-month figure would have been considerably better.

• **Turning the Tide**—The tide of corporation-dealer relations turned just a few weeks after the "Good Friday revolt." The company had started its talk-softly policy; production had been cut back to meet dealer orders; most important, spring had come with its usual crop of eager auto buyers. All through the summer, the dealers heard the rustle of waving greenbacks and wonderful whispers of the line of cars to come in the fall.

One other corporate action directly affected only a handful of dealers but had a tremendous effect on morale, because it showed that the company was in dead earnest about helping dealers. This was the establishment of the Dealer Enterprise Plan.

II. The Dealer's Partner

In simplest terms, DEP makes it possible for a capable auto salesman with a little capital to open a dealership as a partner of Chrysler. General Motors, through Motors Holding Corp., has had such a program since the late 1920s; Ford Motor Co. set up its Dealer Development Program in 1950.

DEP works this way. Suppose you are the sales manager of an existing dealership and want to open your own store. If your application is approved, you put up a minimum of 25% of the capital in a new corporation, and Chrysler puts up the rest. You get common stock and Chrysler gets preferred stock, each with a \$100 a share par value. You are paid an annual salary and bonus, and you retire the preferred stock out of earnings and bonuses. Your goal is to buy out Chrysler entirely in five years.

• **For Example**—The corporation uses this example. In a \$100,000 company, you have invested \$25,000 in 250 common shares, Chrysler has put \$75,000 in 750 preferred shares. The first year's operating (pre-tax) profit is \$50,000; you get 25% of this (\$12,500) as a bonus. Then taxes are deducted, leav-

Sometimes
But if you s
So much de
Today th
science do
vitamin th
example is
research. T
arresting co
vitamin es
it is now u
aids to hea
animal fee

Folic Ac
Cyanamid
Cyanamid



Photograph by Barton Murray

What would you wish for?

Sometimes it's hard to decide. There are so many wonderful things to wish for. But if you stop to think a moment, isn't good health one of the most important? So much depends on *health!*

Today this wish is coming true for more people than ever before, as medical science does more to help *build* good health. Particularly in the fields of vitamin therapy and nutrition are advances being made. One outstanding example is the synthesis of Folic Acid developed by American Cyanamid research. This essential vitamin was quickly recognized by doctors as an aid in arresting certain types of anemias. Its importance in daily nutrition as a vitamin essential to life itself has more recently been established. As a result, it is now used in vitamin compounds which supplement regular diets as aids to health. Also recognized as a growth factor, Folic Acid is being added to animal feeds to promote growth and increase resistance to disease.

Folic Acid is one of the pharmaceutical and nutritional products of American Cyanamid's Fine Chemicals Division. Its synthesis is another contribution of Cyanamid chemistry in advancing the health and the well-being of mankind.



AMERICAN CYANAMID COMPANY

30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

THE THREE CUTLER-HAMMER STARS
 ★ ★ ★
 STAND FOR THREE NEW STANDARDS

★ *installs easier*

★ *works better*
 ★ *lasts longer*

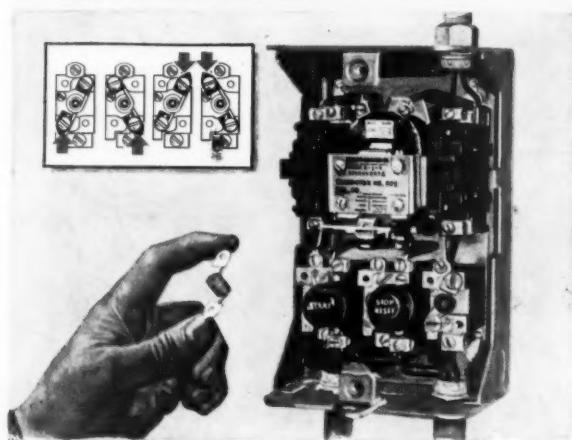
Electrical interlocks...

Up to four extra control circuits may be added by simple installation of interlock blocks. Contacts can be normally open, normally closed, or both. A screw driver is the only tool needed.



Adjustable overload coils...

Each heater coil can be placed in any of four positions to permit adjustment of the overload protection to within 3% of the motor rating...compared to 10% or 12% on competitive control.



Better performance is more than a mere claim in the spectacular new Cutler-Hammer ★★★ Motor Control. Field tested for more than two years in hundreds of the most difficult jobs before it was ever released for sale. Compared with every make of control by actual users...to have most say, "Better than anything we have ever used." Loaded with new features, a few of which are described all too briefly above. Try it now! Order from your nearby Cutler-Hammer Authorized Distributor today. CUTLER-HAMMER, Inc., 1275 St. Paul Avenue, Milwaukee 1, Wisconsin.



Full three-phase protection...

Another Cutler-Hammer "first!" Now the widely demanded three-coil overload protection, so necessary to prevent single-phasing motor burn-outs, is here as an optional feature in standard starter constructions and enclosures. Complete 3-Phase protection...without the high cost of special starter assemblies or the many problems of cumbersome off-size enclosures.



CUTLER-HAMMER ★★★ MOTOR CONTROL

ing a net Chrysler, transferred div dealer belong en Chrysler least half buy up recommended residential If at the \$12,100 preferred, second ye so on year • Results March at content, established. Early this proved in Chrysler's about \$10 is no arbit dealership vest. There a substantial does want markets.

DEP I that help ships.

• The dealers. A to open a so is the or to buy remains t company used to b

• The and adm dealer par plicant go of the whose can franchises tion through Dodge d franchise Chrysler ouths.)

• The S O.K., the detailed goes to and them Enterprise by one who digs additional Shanklin; ment com Shanklin; vice-pres George T cial boss; Walter S

If the pany's b Shanklin, handled

BUSINESS

ing a net profit of \$23,500. Of this, Chrysler gets 75% (\$17,625) as a preferred dividend. The rest goes to your dealer company—which will eventually belong entirely to you.

Chrysler requires that you use at least half of your bonus (\$6,300) to buy up its preferred stock, and it recommends that you use the \$5,875 residual profit for the same purpose. If at the end of the first year you use \$12,100 to retire 121 shares of the preferred, Chrysler's dividend for the second year will be reduced 62%, and so on year by year.

• **Results**—DEP was announced last March at the peak of the dealer discontent, and the first dealership was established in April at Southgate, Calif. Early this month the number of approved investments had risen to 26. Chrysler's investment has averaged about \$107,000 per dealership. There is no arbitrary limit on the number of dealerships in which Chrysler will invest. The corporation isn't striving for a substantial increase in dealers, but it does want to be covered in the best markets.

DEP has two important elements that help strengthen dealer relationships.

• The plan is not confined to new dealers. An existing dealer who wants to open a second showroom is eligible; so is the man who wants to expand, or to buy out a partner. The procedure remains the same except that a new company is formed and its capital is used to buy out the former company.

• The procedure for establishing and administering the corporation-dealer partnership also helps. The applicant goes to the regional sales office of the franchise-agreement division whose car he hopes to sell. (Chrysler franchises are made with the corporation through the Chrysler, De Soto, or Dodge divisions. Plymouth is not a franchise-agreement division, since all Chrysler Corp. dealers handle Plymouths.)

• **The Steps**—If the applicant looks O.K., the regional manager prepares a detailed investment statement, which goes to the division, is fine-combed, and then goes to Shanklin's Dealer Enterprise office. There it is taken over by one of his investment managers, who digs some more and prepares an additional statement that goes back to Shanklin and the corporation's investment committee. This is made up of Shanklin; Jacobson; A. vanderZee, a vice-president on forward development; George Troost, vice-president and financial boss; H. A. Davies, treasurer, and Walter Simons, assistant treasurer.

If the deal is sealed, the new company's board of directors includes Shanklin, the investment manager who handled the application, and the new

dealer himself. The significance of all this is that the DEP dealer knows and is well-known to a group of key Chrysler executives, who take a sympathetic interest in his problems.

• **Insight**—The announcement of DEP brought Chrysler a further bonus. Inquiries on the plan came in from many of the corporation's 10,500 dealers, giving Chrysler executives a closer insight into dealer affairs than they had had for years. "We had some applications from those who didn't need it," says Shanklin, "but wanted to find out what should be done." From the dealer's point of view, the important thing was that a Chrysler representative was ready to help.

"Humanness doesn't cost anything," says Jacobson.

By now, outsiders as well as Chrysler people believe that the corporation has a strong selling organization. The question that remains, for Chrysler, is what the dealers have to sell in 1955.

III. The Product

At a cost of—Colbert says \$250-million—for design, engineering, tooling, and plant preparation, Chrysler Corp. has brought out five cars that bear little resemblance to anything in the corporation's recent history. The line-up:

Plymouth. This car becomes the longest in the low-price field; last year it was the shortest. Like its rivals, Ford and Chevrolet, it offers a choice of powerplants—a 6-cyl. 117-hp. engine, or V-8s of 150, 167, or 177 hp. Like all 1955 Chrysler-built cars, the Plymouth has a wraparound windshield; the lever for the automatic transmission is mounted on the instrument panel.

Dodge. Along with Plymouth, the Dodge is the most radically designed of Chrysler's cars. Dodge length has been increased by as much as 16 inches in some models. As in the past, a 6-cyl. engine will be available, this year rated at 123 hp.; three V-8s develop 175, 183, 193 hp. The top series, the Custom Royal, is offered in three-color combination.

De Soto. The 6-cyl. engine has been dropped from this line, and De Soto now offers only two V-8s, of 185 and 200 hp.

Chrysler. This line, too, has dropped the 6-cyl. engine, which last year was available in the Windsor. Now the Windsor V-8 develops 188 hp., while the New Yorker de luxe has a 250-hp. engine.

Imperial. For 1955, Chrysler has completed the establishment of Imperial as a separate line, although it will continue to be built and sold by Chrysler Div. The Imperial has the same 250-hp. engine as the Chrysler New Yorker. It has followed the trend toward a longer, lower car, without los-

Are Your Packaging and Wrapping Dollars

LOAFING?



**Make them work
100% efficiently with
Thilco paper Imagineering**

COST CONTROL of your wrapping and packaging dollars — getting the *most* out of them, may be one of your problems. Many companies are getting help from Thilco.

EXAMPLE: A twist drill manufacturer uses a single THILCO Print-decorated, laminated greaseproof wrap in place of more costly double wrap. Saving: 40% plus, a package that sells as it protects.



Similar money saving methods suggested by Thilco have been adopted by others.

- Container manufacturers use Thilco specially treated papers as fibre drum liners for protection against water, moisture-vapor, grease and oil, with unusually large savings over steel cans and drums.

- A Special Thilco wax-laminated case liner prevents green lumber from pitting and corroding aluminum sheets. Coating oils are retained and costly damaging losses entirely eliminated.

Your Packaging Dollars Can Earn Their Pay!

Chances are Thilco functional papers can greatly *improve* your wrapping and packaging without increasing present costs — more often they can do a better job for less. Thilco papers can also be Print-Decorated for identity — and most are available in up to 10 ft. widths. Investigate Thilco now — there's no obligation of course.

Get this "Fact File"

It tells of savings made by companies such as yours. Write on your company letterhead today — and put some of these cost control ideas to work for you.



SHIP YOUR EXHIBITS

Door-to-Door VIA PADDED NORTH AMERICAN VANS



The ONLY departmentalized display moving service!

North American padded vans shorten delivery time on your displays, for several reasons. Door-to-door service eliminates local drayage. Little or no crating required — hence faster get-ready, setting up, dismantling. Nationwide dispatching network assures prompt arrival of vans when promised. Better move ALL WAYS, via North American.

Agents
throughout U.S.A.,
Canada, Alaska



GET THIS HELPFUL NEW BROCHURE!

Fully illustrated, gives valuable suggestions on moving trade-show displays . . . quickly, easily, economically. Phone NAVL agent (listed under "Movers") or write NORTH AMERICAN VAN LINES, Dept. BW1154 Fort Wayne 1, Indiana.



SERVING THE MOVING NEEDS OF A CONTINENT!



"Give her five minutes more, Joe—the boss is safe in his office."

Keep the coffee-break in your control

Are your employees waiting until you are safely in your office, then wasting your time by having an uncontrolled "coffee-break"? Do you allow it to waste time and money every day—or do you keep it in your control?

For you can control it easily and effectively—and without cost! Use it as a production tool—as an employee benefit. Rudd-Melikian completely automatic dispensing machines serve fresh, hot Kwik-Kafé coffee, and popular soft drinks right in the office or plant. There is a size suitable for every location, and service is supplied by your local factory-trained R-M dis-

tibutor...at no cost to management—Remember—you don't have complete control unless you have Kwik-Kafé.

Clip The Coupon—Write Us Today!

Rudd-Melikian, Inc., 1949 N. Howard St.,
Phila. 22, Pa.

Gentlemen:

- Please show me how to control the "coffee-break" with R-M dispensers. Booklet BCII
- Please send me full details about securing a profitable Rudd-Melikian franchise.

Name _____ Firm _____

Street _____

City _____ Zone _____ State _____



RUDD-MELIKIAN, INC.

Creators of an Industry

ing the touch of conservativeness that Chrysler thinks it must have to appeal to the high-priced buyer.

• Ambition Now—The 1955 Chrysler cars are the first that have come out under the full styling control of Virgil M. Exner, Director of Styling, and of Pres. Colbert, who personally hired Exner. There is no mistaking Exner's enthusiasm for the new line. He expects to seize at least 20% of the auto market in 1955. To get off to a fast start, he has scheduled production of 250,000 cars by the end of this year.

Corporation officials claim that 135,000 of these cars have been ordered in advance of the introduction of the new models.

Weigh It Right

Philadelphia drive on short weights boosts fines; but all agree it's mostly error, not cheating.

The wonders of the modern food store—mechanization, self-service, and the paraphernalia that go with them—haven't completely solved one problem: short-weighting and short-changing of customers. This phenomenon is probably not local, but Philadelphia, at least, has reached a point where it is working at a solution.

A few days ago, 43 retail food staffers were haled before a magistrate in that city on short-weighting charges. A few got their cases postponed. The rest were convicted and fined from \$25 for a first offense to \$100 for a third.

• Intent or Error?—Philadelphia's Bureau of Weights & Measures has some statistics that seem to point to a rapid rise in thumb-weighing. In 1951, convicted short-weights paid a total of \$9,871 in fines and court costs. Last year, these figures ran to nearly \$17,000. The bureau has collected almost that much in the first 10 months of this year, expects the total take to run to \$20,000 for all of 1954.

At first glance, this would mean just one thing: Food clerks are getting more dishonest. Chain store operators don't agree. It's the system that does it, they say. They point to the heavy increase in packaging of foods, particularly meats. One chain says its markets package 8,000 to 15,000 cuts of meat each week. This puts more of a burden on packaging clerks, who weigh foods as they wrap them. "Mere human error," chain officials contend, has increased with the volume of weighing and packaging; there are only rare instances of intent to cheat.

• Agreeing—James J. Powers, supervisor of the Bureau of Weights & Measures,

Sup
Stre

The
sand
prote

Wi
great
shock
uct p
dam

Qu
how t
tech

A. E.

Staley's®

PRODUCTS FOR INDUSTRY, FARM AND HOME



How Staley helps industry wrap up more sales

Superior Staley Starches Boost Boxboard Strength...Increase Water Resistance...Cut Costs!

The unusual-looking machine above is making an endless corrugated sandwich to feed a billion dollar appetite . . . boxboard packaging to protect the goods of our nation.

With Staley's Corrugating Starches this machine can operate at greater speeds and yet produce superior board . . . excelling in both shock and water resistance. These advantages add up to greater product protection—minimize customer complaints—lessen returns due to damage and help hold the line on shipping costs.

Quality starches for boxboard makers is just another example of how Staley serves American industry. Whatever your business, Staley technicians invite your problem. Write today!

A. E. Staley Manufacturing Co., Decatur, Illinois

A FEW INDUSTRIES SERVED

- Mineral Processing
- Building Materials
- Textile
- Paper
- Plywood
- Adhesives



BRANCH OFFICES: ATLANTA • BOSTON • CHICAGO • CLEVELAND • KANSAS CITY • NEW YORK • PHILADELPHIA • SAN FRANCISCO • ST. LOUIS



WITH ANTI-CORROSIVE STAINLESS STEEL FASTENINGS



SAVE INITIAL COST!

Superior production capacity and know-how means lower costs from Anti-Corrosive, America's oldest and largest firm dealing exclusively in stainless steel fastenings!



SAVE TIME!

IN STOCK inventory of more than 9,000 varieties and sizes of stainless fastenings means immediate delivery of your needs! Streamlined service on special orders, too!



SAVE OPERATING COSTS!

Anti-Corrosive's consistent top quality protects your production schedules, eliminates rejection headaches, means trouble-free operation!



Write for FREE Catalog 54A, the one complete reference handbook to stainless steel fastenings! Varieties, sizes, prices and discounts at a glance!



ANTI-CORROSIVE METAL PRODUCTS CO., INC.

Castleton-on-Hudson New York

is inclined to go along with this explanation—at least as far as the big chain markets are involved. "We figure about 90% of such cases result from carelessness or some other human failing," he says. "As a matter of fact, I believe honesty among food clerks is at a higher level now than it has been in several years."

He cited a recent case. A packaging clerk was busy wrapping meat cuts to sell for 79¢ a lb. when another clerk asked about the price of a more expensive cut. This apparently produced a mental block for the first clerk, who marked her next half dozen packages at the higher price.

There's another reason for discounting the dishonesty-on-the-upswing theory—a political reason. In 1952, Philadelphia went through a political upheaval. The Democrats won a majority of the city commission seats, and immediately started to houseclean the Bureau of Weights & Measures. They hired Powers, replaced most of the staff of 83 persons, told the new staff to crack down on short-weighing.

• **Difference**—The bureau notes a difference, though, between the chain stores and the independents. Faulty scales, says Powers, are a rarity in the chains. The bureau checks scales four times a year, finds the chains quick to chuck old equipment. But among independent operators, the inspectors are confiscating a couple of dozen scales a month.

That seems to be because the chains have the organization to police themselves.

• **Penny or Two**—The bureau's actual responsibility ends with short measures. But it reports other types of cheating to the police—short-changing, for example. "Usually the chains are very alert to this sort of thing," Powers says. "But we have detected a few clerks adding a penny or two to each item at checkout counters."

• **Follow-Up**—The chains take steps of their own in short-weight, short-change cases. They seldom fire first offenders though they sometimes transfer them to new locations. "Where it's a matter of an obviously unintentional error, we don't take disciplinary action," one chain executive says. But any deliberate cheating is cause for immediate dismissal."

• **Methods**—Mostly, the chains say they aren't upset by the city's crackdown. But they did balk at one aspect of it. Last month they persuaded the bureau to stop announcing the names of the stores involved at hearings. Now only the name of the violator and the store address are made public. About the same time, they persuaded the bureau to give its inspectors new instructions on procedure. Formerly, the inspectors browsed around, picked up and weighed any packages that looked suspicious. Now they weigh a sample dozen or so packages in each department.

Model 145
TOMOMATIC
Chain Company
Truck is one

WHEN with
replaced 30-ton truck
pany's New
Operating
Maintenance,
ton,
And the T
now haul
hour.
But lower
story.
On-the-job
sharply. I
alert because
pedal to
throttle w
trol—have
or 10.

FIR
UN
ONE MA



Fashion Mart in a Trailer

Buyers for Florida shops have it easy: This traveling showroom brings its wares to them. Sales Corp. of Miami, set up just for this purpose by Jay Kashuk, equipped the 37-ft. trailer complete with air conditioning, a bar, and two salesmen.

Sales Corp. makes appointments with buyers ahead of time. The Caravan of Fashion makes two and three-day stops throughout the South, shows off the models of 14 Miami sportswear manufacturers. If it makes a hit, the company plans three 10-week trips a year.

Model 145 Dart Truck equipped with Allison TORQOMATIC DRIVE being loaded at Sunnyhill Coal Company's New Lexington, Ohio, mine. Truck is one of 10 operated by Sunnyhill.



10 trucks replace 30 —cut costs 62%

WHEN 10 50-ton trucks equipped with Allison TORQOMATIC DRIVES replaced 30 mechanical-drive 20- and 30-ton trucks at Sunnyhill Coal Company's New Lexington mine:

*Operating costs dropped 18.6¢ per ton,
Maintenance costs were cut 13.1¢ per ton,*

And the TORQOMATIC-equipped trucks now haul 32.6 more tons per truck hour.

But lower costs are only part of the story.

On-the-job accidents have dropped sharply. Drivers stay fresher, more alert because they now have no clutch pedal to push—quick-shift at full throttle with finger-tip hydraulic control—have only 3 shifts instead of 7 or 10.

Wet weather worries have almost disappeared—road maintenance costs are lower. Smooth power transmission by the Allison TORQOMATIC DRIVES lets trucks drive through mud and muck—conditions that often shut down the mine before TORQOMATIC-equipped units came on the job.

Big reason for lower operating and maintenance costs is shock-free power transmission by the *matched* TORQOMATIC Converter-Transmission teams. The Converter absorbs shock loads instead of transmitting them along the drive line—protects engine, differential, drive shaft and transmission from damage.

There's an Allison TORQOMATIC DRIVE for your 40- to 400-horsepower gasoline and Diesel equipment. New low-

cost 40-150 h.p. TORQOMATIC Converters easily fit present equipment, are completely self-contained for simple installation. Get full details about Allison TORQOMATIC DRIVES from your equipment manufacturer or dealer or write:

Allison Division of General Motors
Box 894B, Indianapolis 6, Indiana

ALLISON TORQOMATIC DRIVES

Unbeatable Team for Maximum
Operating Economy

- Quick-Shifts at full throttle with finger-tip hydraulic control
- Holds power to load at all times—no clutch pedal to push—no gearshift guess
- Reduces maintenance costs by absorbing shock—eliminates engine lugging—prolongs equipment life
- First torque converter-transmission team designed to work as a *unit* and built by one manufacturer
- Cuts driver training costs

FIRST MATCHED
UNITS BUILT BY
ONE MANUFACTURER

COMPACT, EFFICIENT



HYDRAULIC DRIVES FOR TRUCKS * CRANES * TRACTORS * SCRAPERS * SHOVELS * DRILLING RIGS

Allison
TORQOMATIC DRIVES

Dairies Try Discounts

Harassed dairies look for ways to recapture home delivery market . . . Justice Dept. takes anti-fair-trade stand . . . Embattled oil dealers ask big producers' help in industrywide promotion.

Hard pressed by rugged price competition, dairies are taking a new look at a 15-year-old quantity-discount milk-pricing plan as a way to win back some of the home-delivery market they have lost to supermarkets.

Prime mover in an industry drive to spread the discount plan is Northland Milk Co. of Des Moines, whose president—Edwin S. Elwell—originated the plan back in 1939. The Elwell plan and other similar quantity-discount schemes are aimed at prorating the high cost of home deliveries over the number of bottles ordered. That way, both the dairy and the consumer save money on larger orders. The Elwell plan works this way:

The dairy fixes a base price on a quart of milk, including its cost to the dairy, handling and processing costs, plus the desired profit—totaling, say, 19¢. To this base price the dairy adds the cost of delivering that one quart, usually another 3¢ or 4¢. Each additional quart bought by the consumer costs him only the 19¢ base price, with no charge for delivery.

Northland has drummed up considerable industry support for the plan, which it pushed hard at a recent dairy exposition in Atlantic City. In the past two weeks, Northland says, several other dairies across the country have adopted the Elwell plan, boosting home-delivery sales as much as 15% to 20%. The American Dairy Assn. has expressed interest in the plan's possibilities for upping total consumption.

Justice Dept. has tipped its anti-fair-trade hand, giving opponents of retail price fixing a glimmer of legal hope.

In a fair trade case filed in St. Louis federal district court in non-fair-trade Missouri, the Justice Dept. filed an *amicus curiae* brief asking the court to dismiss charges brought by Sunbeam Corp. against a price-cutting retailer. Missouri Petroleum Products Co., Inc., the retailer, had been using its vantage point in a non-fair-trade area to ship Sunbeam's fair-traded goods across state lines into fair trade states at cut prices. This case is similar to another brought by Sunbeam against Masters, Inc., a New York discount house that set up shop in non-fair-trade Washington, D. C.

Actually, this is about the last legal

loophole left for the anti-fair-traders. The Supreme Court has refused five times this year to review fair trade on federal constitutional grounds, although the question of state constitutionality is still open. The Justice Dept. is also expected to ask Congress for repeal of fair trade acts, but it is doubtful that the Democrat-controlled houses will accept a GOP antitrust recommendation.

The American Fair Trade council, meeting in New York last week, called on Justice to reverse its stand, to go after "big monopolists" and leave the fair trade laws alone.

In the final analysis, most observers expect the fair trade fight to be decided in the marketplace rather than in the courts. Retailers are showing more and more willingness to do price battle with discounters, regardless of fair trade (BW—Sep. 11 '54, p170). In Atlanta recently, retailers and wholesalers who make up the U. S. Chamber of Commerce's Committee on Distribution indicated that they felt unenforced fair trade is more of a hindrance than a help. Nearly half of the committee panel wanted to meet price-cutters on their own ground; 15% said they are already competing in price with the cut-rates.

The fuel oil industry is warming up to its big battle for the home-heating market.

In Chicago last week, the newly formed National Oil Heat Council outlined an \$800,000 promotion campaign before the American Petroleum Institute convention. It lined up support from retailers, wholesalers, jobbers, and got a show of interest from the hard-to-sell major oil producers.

The oil people are worried over the inroads made in home heating by natural gas, even in areas where gas costs more than oil (BW—Oct. 23 '54, p53). The new council was informally born out of the dealers' Oil Heat Institute, representing all segments of the industry—from producers to equipment manufacturers. NOHC hired the New York public relations firm of Selvage, Lee & Chase to do an industry study, and came up with some pretty disturbing statistics and conclusions.

Today, oil heats about 7-million homes, gas about 6-million. In 1940, gas heated about 1-million homes. The oil people say this rise is largely due to

heavy promotion by the American Gas Assn. and Gas Appliance Manufacturers, Assn. NOHC's job will be to sell consumers on the merits of oil as clean, dependable, economic, safe fuel.

In Chicago, Sinclair Refining Co.'s president J. E. Dyer was the first executive of a major producer to go to bat for the oil interests. He said that market demand for petroleum distillates (from which fuel oils are produced) has grown more than two-and-a-half times in the last 15 years, and now represents 21% of the petroleum market. This means, said Dyer, that the majors have a big stake in oil heat's future.

Next step in NOHC's drive will be to get other majors lined up on their side at another industry meeting in New York next month.

MARKETING BRIEFS

Insurance policy sales at Carson Pirie Scott department store in Chicago were big enough to warrant a second year of this experiment. Sales are handled by Childs & Wood on a leased department basis. The store says the bulk of sales were to customers who hadn't had such policies. Best sellers: auto, household, fire, theft, fur, jewelry, and hospital insurance.

National Airlines will ask CAB to let airlines confer on charging passengers for reserved seats. Passengers who don't show up cost the lines thousands of dollars a year in unused capacity, says National.

Another record year for advertising is forecast by Eldridge Peterson of Printer's Ink. Estimated volume next year \$8-billion, against estimates of \$84-billion this year.

Do-it-yourself fanciers can install their own heating with Package Comfort Heat's new system. The customer has a choice of three furnaces, gets the equipment, and instructions, for \$199.50 for a two-bedroom house.

Furniture retailers, and Better Business Bureaus are putting on a drive against unfair and harmful advertising and selling practices in home furnishings. Five leaflets warn consumers against phony "quitting business" sales and phony contests; they also warn of the perils of shooesale, factory-to-you and "confidential discount" offers.

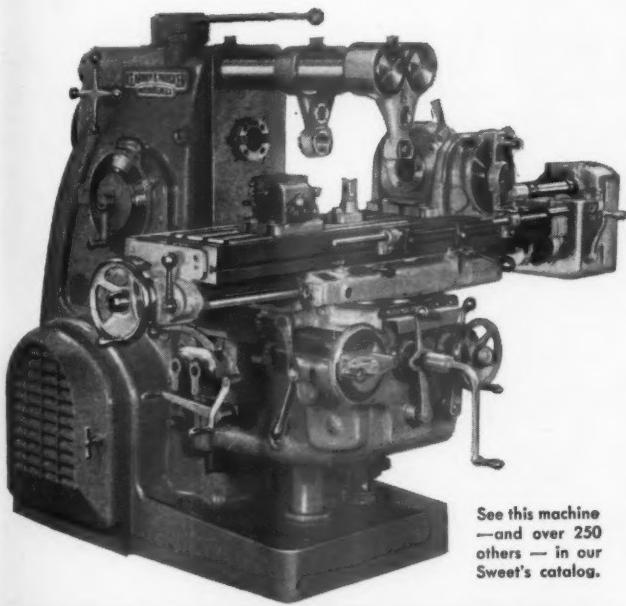
Switch on TV: Gruen Watch Co. won't renew its TV contract with Walter Winchell when the contract expires in December. Gruen is going to concentrate on newspaper and magazine ads.

WOULD YOU SPEND 47½ CENTS PER HOUR...

for all the production you can get from this new 10 hp No. 2 Model CK universal milling machine? That's all it would cost you under

Kearney & Trecker

TOOL-LEASE PROGRAM



See this machine
— and over 250
others — in our
Sweet's catalog.

MACHINE TOOL OBSOLESCENCE IS BECOMING CRITICAL! WHERE DO YOU STAND?

Special Industry Machinery — Includes machinery for food-products, textile, woodworking, paper industries, printing, cement-making, glass-making, incandescent lamp-making; paint-making, rubber-working, tobacco-products, shoe-making, and stone-working; smelting and refining equipment. Of the total 12,889 machines in use today which can be replaced by Tool-Lease equipment — 28% are over 20 years old, over 36% are 10 to 20 years old!

Machines over 20 years old
which should definitely
be replaced.

Machines 10-20 years old
which should probably
be replaced.

Machines less than
10 years old

1796 automatic and manufac-
turing type milling machines

21%	35%	44%
-----	-----	-----

2898 vertical milling machines

15%	42%	43%
-----	-----	-----

7343 knee type horizontal
milling machines

36%	34%	30%
-----	-----	-----

570 bed type milling machines

31%	34%	45%
-----	-----	-----

254 horizontal and vertical
precision boring machines

7%	16%	77%
----	-----	-----

Figures adapted from 1953 American Machinist survey of metalworking industry.

HERE'S another popular knee-type universal milling machine, packed with outstanding design and operating features. It's available for your immediate needs under Kearney & Trecker's Tool-Lease program.

Under Tool-Lease Plan "A," one of three seven-year lease agreements offered by Kearney & Trecker, you make two semi-annual rental payments, totaling 25% of the machine's price during each of the first three years. Actually in dollars and cents, you pay 47½ cents per hour for this new 10 hp No. 2 Model CK universal milling machine. That means a machine installed in your plant and in operation — literally for pennies an hour!

What's more, under Tool-Lease, you can rent any of over 250 different types and sizes of standard milling machines or precision boring machines. All are available under three basic plans, with varying options to continue or terminate the lease, or to purchase the equipment. If you require special machinery or heavy-duty CSM bed types, special agreements will be considered.

For complete information on Tool-Lease, see your Kearney & Trecker representative or mail coupon to Kearney & Trecker Corp., 6784 W. National Avenue, Milwaukee 14, Wisconsin.



KEARNEY & TRECKER CORP.
6784 W. National Ave., Milwaukee 14, Wis.
Please send me Bulletin TL-10A on
Tool-Lease Program and booklet titled
"Critical Picture of Creeping Obsolescence."

Name.....

Title.....

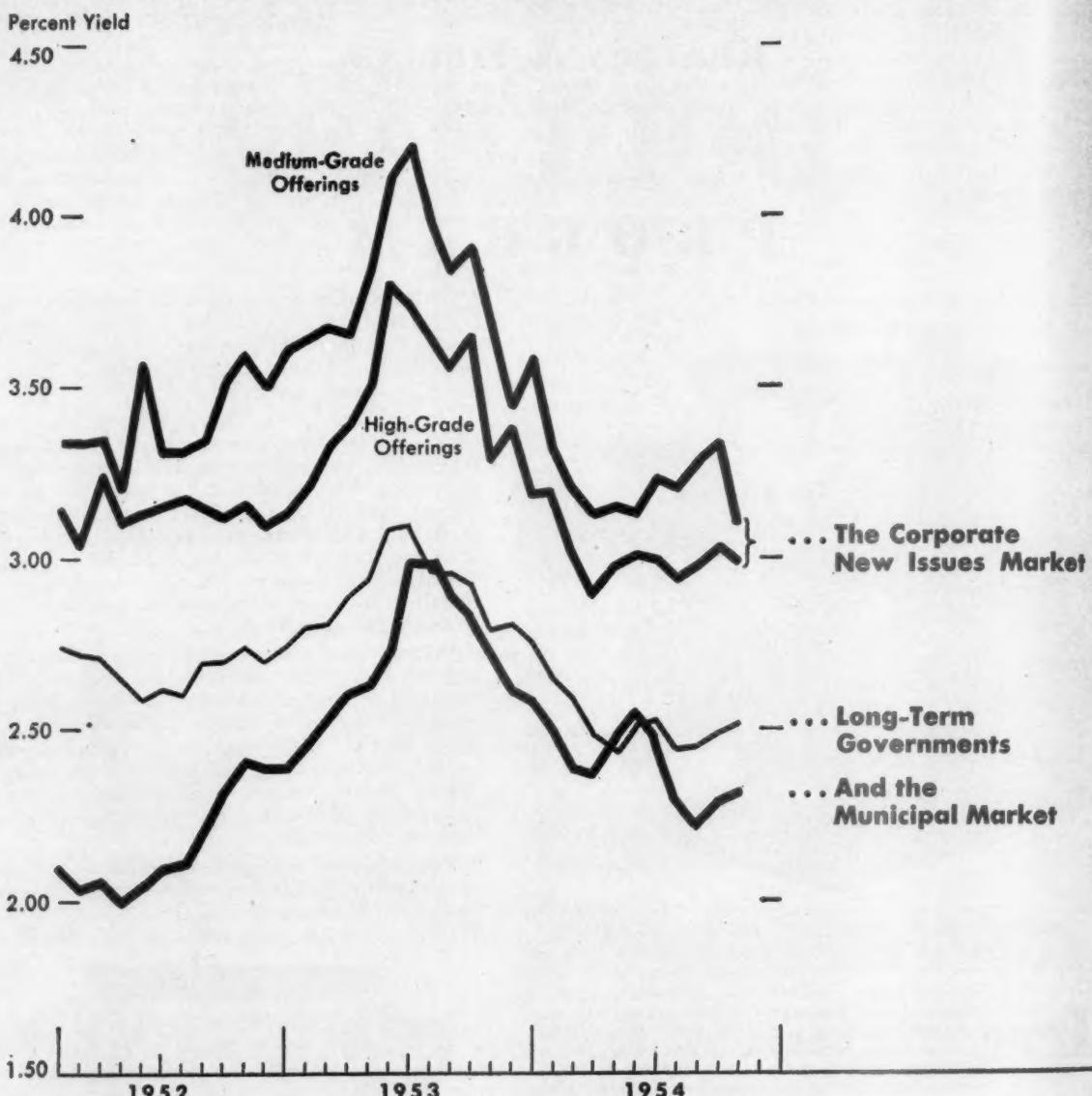
Company.....

Address.....

City..... Zone..... State.....



The Money Rate Pattern Lately In...



Date: Standard & Poor's Corp.; BUSINESS WEEK.

©BUSINESS WEEK

Corporate Bond Buyers Balk

Buyers interested in corporate new issues are taking a watch-and-see attitude these days.

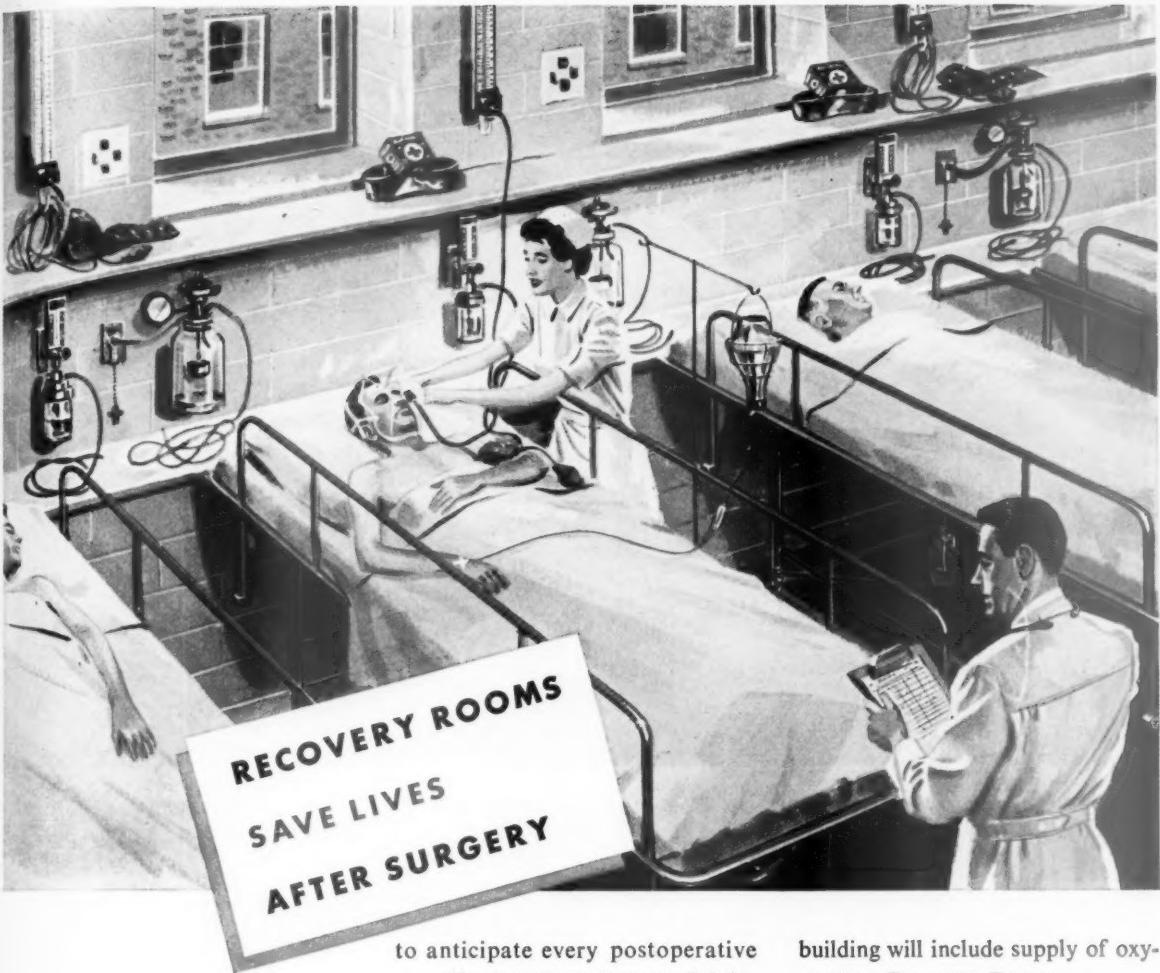
For one thing, that bellwether of the bond market, the Treasury, has an \$18-billion refunding job just around the corner. Bond buyers generally are waiting warily to find out the Treasury's

plans, especially whether it will try long-term bonds.

Then again, the buyers of corporate new issues are beginning to balk at the low yields which are the inevitable obverse of the high prices that have prevailed for some time. Once again, investors are shying away from yields

of less than 3% on prime corporate issues (BW-Jun.5'54,p56).

- Stickiness—Syndicate managers have been aware of this buyer reluctance for some time. The hang-back attitude really got rough just lately when a New York Telephone Co. issue failed with only \$5-million sold out of \$75-million.



Hospitals everywhere are taking another step to save lives and give patients better care at less expense. This latest step is a weapon to beat the unexpected crises that can follow any surgery. The new weapon is the Recovery Room . . . a "safety island" on the trip from the operating table to the convalescence bed. Here every patient gets continuous observation and care by skilled nurses and resident doctors—care that is the equivalent, and more, of having a special 'round-the-clock private nursing care. Recoveries are hastened. Hospital stays are shortened. And the patient's hospital bill is consequently lower.

Recovery Rooms are so effective because they are equipped and staffed

to anticipate every postoperative complication or emergency. It is indeed easy to understand why they are in the plans of virtually *all* new hospitals today, why they rank at the very top of most hospital modernization projects.

A standard feature of every Recovery Room is instantly available vacuum and an oxygen supply at each patient location. Only a piped oxygen system with convenient wall outlets can save the seconds which so often prove vital in an emergency. More than 800 U. S. hospitals today have NCG Oxygen Piping Equipment. In these, the addition of a Recovery Room requires only the extension of the present oxygen piping. In many others, a complete NCG Oxygen Piping System already planned to modernize the entire

building will include supply of oxygen to a Recovery Room.

NCG also supplies much of the apparatus needed for Recovery Rooms, as well as apparatus used for oxygen therapy throughout the hospital. In fact, NCG is recognized for its progressive research in the designing of new equipment to keep pace with the constant advances doctors and hospitals are making in the use of oxygen and other gases to help save lives and speed recovery.

Copyright 1954, National Cylinder Gas Company

NCG®
MEDICAL DIVISION

NATIONAL CYLINDER GAS COMPANY, Executive Offices: 840 N. Michigan Avenue, Chicago 11, Illinois

**TRI 55 CLAD THE LEADER
IN MODERN MOTOR DESIGN**



Sound-room tests prove **TRI 55 CLAD** motors operate at greatly reduced noise level!

Here's the new motor that will help solve the problem of industrial machinery noise. It's the quieter, more compact G-E Tri/Clad '55' motor, in ratings from 1 to 30 hp a-c.

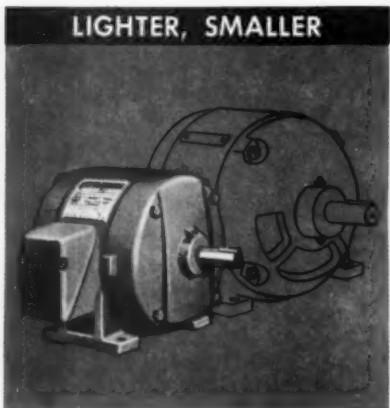
To reduce noise, G. E. engineers developed a new concept—a sonant motor—a motor that sounds pleasing to the ear. They studied, and then reduced, the causes of motor noise—bearing rattle, magnetic hum, and windage. Sound room tests prove the Tri/Clad '55' is sonant, runs quieter.

In addition, the modern looking Tri/Clad '55' motor is lighter and smaller—saves weight, saves space.

Try this new motor. See for yourself how the Tri/Clad '55' can help reduce noise and save space in your own equipment. Contact your G-E Apparatus Sales Office or G-E Motor Supplier today. For bulletins, write General Electric Co., Section 648-12, Schenectady 5, New York.

Progress is our most important product

GENERAL ELECTRIC



MORE COMPACT MOTOR means more horsepower per pound—saves space, weight—is easier to handle.



SILICONE RESIN COATING on stator plus stronger polyester-film slot and phase insulation increase electrical life.



HIGHER FULL LOAD SPEEDS is typical of many performance improvements in the new Tri/Clad '55' motor.

of these
35-year
—which
underwriten,
broken, t
the free
100.25 b
profit fo
paid 100

A good
cate ball
and hung
bonds in

Another
on the L
fiasco, es
special f
\$20-milli
unsold.
whose 1
at 101.25
since 19
bond ha
2.95%.

Potent
the pric
surance
blocks b
been set
so, the s
firm, aid
two othe
• C
to bond
lic offerin
• Th
that will
turity.

• Altern
porate b
has been
existence
ment mo

Govern
money t
corporate
government
ately to
Thanks
game ov
about its
tem yiel
past few
year 34s
the year's

The p
ainty o
fear tha
with a n
ber, as pa
out the
Still, ple
ing agai
They ar
plenty o
Treasury
That's b
new pla
Indeed,
ing to b
ties.

Tax-ex

BUSINESS

of these top-rated bonds. The issue, 35-year 3s, had been offered at 101.086—which yielded only 2.95%. When the underwriting syndicate was finally broken, that part of the issue which hit the free market promptly skidded to 100.25 bid—a price that wiped out any profit for the underwriters who had paid 100.63 for the bonds.

A good many members of the syndicate balked at taking this blood bath, and hung onto their share of the sticky bonds in the hopes of a subsequent rise.

Another prime corporate issue, close on the heels of the N. Y. Telephone fiasco, escaped the same fate through special features but did end up with \$20-million out of \$100-million still unsold. This was Continental Oil Co., whose 18-year debentures were priced at 101.25, to yield 2.94%—the first time since 1951 that an industrial corporate bond had been priced to yield less than 2.95%.

Potential buyers pulled up short at the price, and many banks and insurance companies that had ordered blocks before the reoffering price had been set canceled their orders. Even so, the syndicate has been able to hold firm, aided by the shorter maturity and two other factors:

- Continental Oil is a new name to bond investors, making its first public offering since 1938.

- The bonds have a sinking fund that will retire most of them before maturity.

- Alternatives—The resistance of corporate bond buyers to the low yields has been greatly strengthened by the existence of alternate havens for investment money.

Government bonds. Some of the money that has been holding off the corporate issues has been going into government bonds, but not enough lately to influence the markets seriously. Thanks to the nationwide guessing game over what the Treasury will do about its refunding next month, long-term yields have risen slightly in the past few weeks. The prices of the 30-year 3s are still some three points off the year's high.

The price drop reflects the uncertainty of investors, and notably their fear that the Treasury will come out with a new long-term bond in December, as part of its program for stretching out the debt (BW-Oct. 30 '54, p64). Still, plenty of market experts are betting against any such long-term issue. They argue that, although there is plenty of long-term money around, the Treasury will be reluctant to sop it up. That's because business spending for new plant and equipment is declining. Indeed, the government is already trying to bolster it by offering tax incentives.

Tax-exempt bonds. This year shapes

New G-E TRI 55 CLAD Motors

REG. U.S. PAT. OFF.

NOW AVAILABLE THROUGH 10 HP!

Prompt Service, Quantity Shipment on these new motors...

TRI/CLAD '55' MOTORS—3-PHASE, 60 CYCLES, NEMA DESIGN B

HP	3600 RPM	1800 RPM	1200 RPM	900 RPM
1/2				K182 220/440v*
3/4				K184 220/440v*
1		K182 208v, 220/440v*, 550v		
1 1/2	K182 220/440v*, 550v	K184 208v, 220/440v*, 550v	K184 220/440v*, 550v	K213 220/440v*
2	K184 220/440v*, 550v	K184 208v, 220/440v*, 550v	K213 220/440v*, 550v	K215 220/440v*
3	K184 220/440v*, 550v	K213 208v, 220/440v*, 550v	K215 220/440v*	K254U 208v*, 220/440v*, 550v*
5	K213 220/440v*	K215 208v, 220/440v*	K254U 208v*, 220/440v*, 550v*	K256U 208v*, 220/440v*, 550v*
7 1/2	K215 220/440v*	K254U 208v*, 220/440v*, 550v*	K256U 208v*, 220/440v*, 550v*	
10	K254U 208v*, 220/440v*, 550v*	K256U 208v*, 220/440v*, 550v*		
15	K256U 208v*, 220/440v*, 550v*			

...and fast delivery on Sample Motors through 20 hp!

7 1/2				284U 208v*, 220/440v*, 550v*
10				286U 208v*, 220/440v*, 550v*
15		284U 208v*, 220/440v*, 550v*		
20	284U 208v#, 220/440v#, 550v#	286U 208v*, 220/440v*, 550v*		
25	286U 208v, 220/440v, 550v			

* Indicates totally-enclosed motors also available.

Driproof only, TEFC available in 286U frame.

All motors obtainable with NEMA "C" face and "D" flange end shields, foot mounted or round frame. Splashproof motors in all ratings.

Motors can also be obtained for 50 cycles. 254 and 256 frames available in high starting torque or high slip NEMA designs C or D, except 3600-rpm motors.

There is prompt service on specials in the above sizes, too! Also new Tri/Clad '55' single-phase, wound-rotor, and hermetic motors are available.

If you wish the G-E Tri/Clad motor in the original design, they are still available . . . in ratings listed above and in ratings to 2000 hp.

To get even more recent availability information on standard and special motors, contact your nearest G-E Apparatus Sales Office or G-E motor supplier. General Electric Co., Schenectady 5, N. Y.

648-22

GENERAL ELECTRIC

The bullwheel came down and footage went up

From a distance, you could see the smoke belching high from the steam-engine. Closer up, if they weren't too far down, you could feel the earth shake as the drill dropped in the hole.

That was spudder drilling in the oilfields—only a generation ago—and the footage they made a day would make a modern driller hide his face in pure shame.

Faster, smoother, cheaper drilling is provided by Twin Disc Disconnecting Fluid Power Take-Off, shown on LeRoi L-3000 engine driving Emco Mud Pump on Mid-Continent Rig. For installations up to 850 hp. Write for new Bulletin 506.

It was a colorful operation...but the bullwheel was doomed to come down. For the efficiency, portability and compactness of the internal combustion engine—combined with the speed and reach of the rotary rig—replaced the old, slow method...providing flexible, controlled horsepower.

And to control horsepower more effectively, today's driller utilizes Twin Disc Friction and Fluid Drives. For as the pioneer in power linkage, Twin Disc provides Industrial Drives for all industries...as standard equipment on the powered industrial machinery built by leading manufacturers.



TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES
REG. U.S. PAT. OFF.

TWIN DISC

TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois

Branches or Sales Engineering Offices: Cleveland • Dallas • Detroit • Los Angeles • Newark • New Orleans • Seattle • Tulsa

"... adding to dealer problems is a press of new municipal borrowing..."

BOND BUYERS starts on p. 121

up as a record one for state and municipal tax exempts, with some \$6-billion worth expected to have passed through the market by the end of next month. But a certain lethargy is showing up. The latest Blue List shows \$270-million in securities stalled in dealer inventories, and the figure might be higher if the dealers didn't dislike to reveal the extent of their stocks. Despite these signs of trouble, prices haven't eased too much. Adding to dealer problems is a coming press of new municipal borrowing, including the nearly \$1.4-billion approved by voters on Election Day. However, this is mostly a next year's problem. The Bond Buyer says only \$118.2-million will be offered in the next 30 days, though this figure may be swelled later.

Mortgages. Among the biggest investors, the life insurance companies are putting more money now into mortgages than into corporate bonds. The mortgages are showing average yields around 4.50%.

Stocks. Some investment money is trickling into the stock market despite the fact that blue chips—which alone could interest the institutional investor—are frequently yielding little more than 3%.

• **For Borrowers**—In theory, this is a pretty good time for borrowers. Norm O. Johnson, assistant vice-president of the National City Bank of New York, points out that a good borrower climate is being produced by the combination of an easy money market supported by both the Federal Reserve and the Treasury, and a decline in business activity. In discussing interest rates, Johnson says, "I work on the assumption that the lowest interest rates of the 20th Century are behind us." Yields, though they seem relatively unattractive, are still far better than they were in 1946. In that year, one utility was able to borrow on long-term bonds priced to yield 2.35%.

What is actually happening is that corporations are borrowing money through publicly offered securities at about the same rate as in 1953—the second biggest year on record. But the bulk of corporate financing, as always, is being done internally, from profits and depreciation allowances.

• **Looking Ahead**—For the future, there are going to be lots of bonds to sell. And there will be lots of money to buy them, with personal savings and life insurance policies holding at peak levels. Available money could easily absorb the



Price measures cheapness, not value

Everyone nowadays is bedeviled by the higher cost of things . . . so you can't really blame a man for buying on price.

"Save a dollar on a valve here, a few cents there—it all adds up."

But time so often tells a different story, when the dollar saved goes out the window in excessive piping maintenance costs. And this can run into a mighty big outlay when you consider the number of valves in a typical plant. Then it's easy to appreciate the great, good wisdom in buying valves and piping equipment of known quality, known dependability.

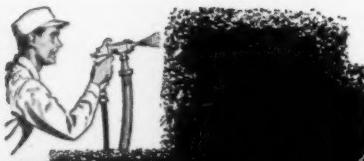
That's when you become a thrifty buyer—when you buy for value, and not for dubious savings . . . when you buy Crane for the lasting service you get, and the lower upkeep cost.

Crane Co., General Offices: 836 S. Michigan Ave., Chicago 5, Ill.
Branches and Wholesalers Serving All Industrial Areas.



CRANE

VALVES • FITTINGS • PIPE • PLUMBING • HEATING



STOP RUST and CORROSION



PLASTIC COATING

- NoDrip eliminates costs of painting and maintenance.
- NoDrip protects and lengthens life of metal equipment and other installations.
- NoDrip makes idle space usable.

Why let a condensation problem, caused by dripping from sweating tanks, pipes, walls, ceilings, air ducts and other metal installations, burden you with a costly maintenance and waste space problem?

NoDrip plastic coating insulates and protects, gives you new plant working area previously blocked off by condensation drip. NoDrip is easy to apply, without special experience, with brush, trowel or spray.

NoDrip can be used on any surface, safely. Stops rust and corrosion, prolongs metal equipment life by many years without any maintenance!

Mortell
COMPANY

Technical Coatings for Home and Industry Since 1895

FREE!

No Drip Data Handbook
Send Coupon Today!

J. W. MORTELL CO.,
580 Burch St., Kankakee, Ill. Dept. 11
Please send my FREE copy of the NoDrip Data Handbook.

Name _____
Company _____ Title _____
City _____ Zone _____ State _____

\$485-million in corporate bonds that Investment Dealers' Digest lists as having definite nearby offering dates.

In this market, it's the underwriters who are in for a tough time. Already, investor balkiness is forcing them to

sharpen their pencils in the effort to keep their wares moving without a total loss of profit. As things stand now, the spread is so thin that one unsuccessful issue can wipe out the profits accrued in several successful underwritings.

Avery Opens Up in Ward Fight

The 81-year-old Montgomery Ward chairman, gunning for challengers Wolfson and Saigh, wreathes usually tight lips in smiles for camera men, confidences for press.

The battle for control of Montgomery Ward & Co.—the world's second largest mail order house—is getting so hot that 81-year-old Chmn. Sewell L. Avery, Ward chief since 1931, is doing things he hasn't done in over a decade.

• For the first time in memory of the current generation of Chicago newspaper reporters, the usually stony-lipped Avery gave an exclusive interview—a free discussion of Montgomery Ward affairs. It lasted seven hours, stretching over two days.

• Avery followed this up with a general press conference lasting nearly three hours—as long as the newsmen had questions. This included a period in which "Mr. Sewell" smiled broadly and grinned good-naturedly for photographers—a contrast to the famous snapshot showing him being carried glumly out of his office in a dispute with the Roosevelt Administration.

• Last week, Avery engaged a public relations adviser—for the first time since 1934. He signed up the New York firm of Selvage, Lee & Chase to help in the battle for control of Ward, which will be decided at the annual stockholders' meeting next Apr. 22.

• Challengers—When multimillionaire Louis E. Wolfson, the bright young man out of Florida, announced that he was out to add working control of Ward to the industrial empire he has been building (BW-Oct. 25, p172), the mail order chairman at first shrugged off the challenge.

But Wolfson's aggressive statements increased in tempo. Word was spread from the Wolfson camp that proxies were flowing in. Wolfson said flatly that he already had 500,000 shares lined up.

Then another contender joined the fray: Fred M. Saigh of St. Louis, once owner of the St. Louis Cardinals, announced that he, too, was soliciting Ward proxies. He said he favored neither Avery nor Wolfson.

• A Good Fight—The multiplying challenges finally moved Avery to action.

"There's nothing Sewell enjoys better than a good fight," his friends have often said. (It was a stubborn scrap

with the War Labor Board that led to his forced exit from his offices during the war.)

Avery opened fire at his press conference with this defiant declaration: "The management of Montgomery Ward will use every legitimate means to resist and defeat the raiding parties being organized to grab the large liquid assets of this company."

"Management is hired to run a profitable business and protect the interest of stockholders," he added. "We intend to continue to do so."

• Adamant—Avery says he is still adamant against expansion now. He thinks current construction costs of \$14 to \$16 per sq. ft. are too high and doesn't foresee any drop in the year ahead. Back in the 1930s you could erect a store with total cost, including land, around \$2.75 per sq. ft. Ward hasn't built a new store since 1941.

The Ward chairman adds that the company is eager to expand when things are right. It's getting ready now, he says, by accumulating assets to cover the cost; and at present, it has not one penny of debt. Eventually, he feels, there'll come a time when the country is overbuilt; and then will be the moment to buy more stores or build new ones on good locations at lower costs.

• Answers—Avery came back with these answers to his challengers.

• He has no plans to merge Montgomery Ward with any other company.

• It isn't fair to compare Ward's results with Sears, Roebuck & Co.'s superior sales and earnings. Sears concentrated its retail outlets in larger cities, while Ward put its stores in small towns and farm trading areas. (Ward's figures show, according to officials, that 70% of sales are made at retail stores, 30% on mail order; but they say these figures are approximate—some catalog orders are handled by retail stores.)

• He would make no guess on earnings for the year ending next Jan. 31, but said dividends would probably continue at the current rate. Ward has paid in the present fiscal year four quarterly dividends of 50¢ a share each, plus one extra dividend of \$1.50.

• Vote Battle—The 81-year-old chair-

Here's matter bookie ideally is the a white shading Ename among rite Off Your p

THE
Sales C

For annual reports and booklets . . .



Here's a trade-mark well worth remembering, for no matter what the job—an annual report, anniversary booklet, or new catalog—you'll find a Mead Paper ideally suited to your need and purpose. Among them is the aristocrat Mead Black & White Enamel, a brilliant white sheet that's highly sensitive to the most delicate shading and every color nuance. There's Mead Richfold Enamel, with a uniformity of service that's unique among low-cost coated papers. And there's Mead Moistite Offset, a quality paper for tops in offset lithography. Your printer or lithographer—and behind him leading

paper merchants everywhere—knows and recommends Mead Papers. Ask for convincing samples from the work he's done. Ask him, too, about Mead's full lines of fine Business Papers.

BETTER IMPRESSIONS, a colorful quarterly now in its fourteenth year, shows Mead Papers at work. Called "the most stimulating paper demonstrator ever produced," each issue is chock-full of ideas. If you are an advertiser or a creator or producer of advertising of any sort, a complimentary copy will be mailed to you in exchange for your request on your business letterhead.



THE MEAD CORPORATION "Paper Makers to America"

Sales Offices: The Mead Sales Co., 118 W. First St., Dayton 2 • New York, Chicago, Boston, Philadelphia, Atlanta



Portland's power demand up 70% since 1945

In the shadow of Mt. Hood, at the western entrance to the water-level route through the Cascade Mountains, stands Portland, Oregon. It has been a real estate man's dream for years.

Population of the metropolitan area has increased 40% since 1940. Growth of commerce and industry has been riding high on the rapid development of lumber and wood processing, pulp, paper, food products, woolen goods, aluminum, chemicals and alloy metals.

To meet rising electrical needs, Pacific Power & Light Company and Portland General Electric Company invested more than \$130,000,000 in new facilities to serve their customers.

In September, 1953, PP&L completed the 125,000 kw Yale hydroelectric dam—the second step in the development of the 500,000 kw power potential in the Lewis River, 40 miles north of Portland.

With all this growth, Rome wire and cable are in wide demand to link up expanding power facilities. Whether for heavy power loads or ordinary house current, all Rome products are held to rigid quality standards that safeguard the heavy investments in machinery and appliances.

Through its reputation for quality, Rome Cable quickly became a top producer in this highly competitive field. That's why you will be interested in "The Story of Rome Cable," yours for the asking.

Rome Aluminum Triplex Secondary and Service Drop Cable is in great demand for new residential developments. Because it requires fewer poles, it's neater and less costly to install.



ROME CABLE
Corporation
ROME • NEW YORK
and
TORRANCE • CALIFORNIA

man ignored Wolfson's proposal to cumulative voting for directors. Avery said that not only he, but two other Ward directors whose terms expire, will run for reelection at the Apr. 22 meeting. The two are David A. Crawford, 75, former president of Pullman, Inc., and Philip R. Clarke, 65, chairman of Chicago's City National Bank & Trust Co.

Ward officials say the management has received "very few communications from stockholders during the current battle." "We have a very nice relationship with our people," Avery told reporters.

• **Long Story**—Avery is bidding for stockholder support to continue a story that dates back to 1931, when he was hand-picked by the J. P. Morgan interests in New York to get the mail order house out of the red.

Avery said he found the previous management had been employing men with inadequate experience to buy new store locations at the rate of one a day—with the Depression already underway.

As new Ward chief, Avery halted acquisition of new store locations, closed 40 unprofitable retail units, pulled in sail everywhere. The result: A \$14-million loss for 1931-32 was turned into a \$14-million pretax profit in 1933-34. Ever since, he has played his cards close to his chest.

Since World War II, he has been even more conservative, and has squandered away the dollars others in the merchandising field—including Sears—have put into new retail outlets.

• **Pot of Gold**—He clings to cash, Avery says, because history shows depressions come along after each big war—13½ years later, on the average—and he's piling up the dollars for the inevitable depression he anticipates.

As a result of this policy, Ward recently had cash and U.S. government bonds aggregating \$293-million—nearly three times the \$99-million it reported in 1946. After allowing for current liabilities of around \$97-million, and \$20-million for the redemption value of Class A stock, Ward's "free cash" comes to about \$196-million—over \$27 a common share.

This is the "pot of gold" Avery says. Wolfson has his eye on.

• **Wolfson Program**—Wolfson says that if he takes over Ward control, he will start a broad program of store expansion. (Ward's \$999-million sales in the year ended last Jan. 31 were under \$1-billion for the first time since 1947.)

The Wall Street grapevine has it that one Florida builder is so certain Wolfson will win that he has bought \$1-million worth of Ward stock and plans to send Wolfson the proxies—hoping to get some construction contracts for new stores.



Mathieson Caustic Soda: *why settle for less?*

In the lime-soda process—one of the two important methods of making caustic soda—the causticizing operation begins in huge settling tanks like those above. Here, a soda ash solution is treated with milk of lime, calcium carbonate is precipitated and a dilute caustic liquor obtained. This liquid is then filtered and concentrated to the commercial 50% and 73% solutions, as well as to the solid, flake, and granular forms. Lime-soda process caustic is produced at Lake Charles, La., and Saltville, Va.; four other strategically located plants produce electrolytic process caustic to make Mathieson a major source of this essential chemical raw material.

Multiple-process and multiple-plant facilities give Mathieson's caustic soda customers the dependability they want. It means their source of caustic is not controlled by

seasonal fluctuations in chlorine demand as is sometimes the case when production is limited to the electrolytic caustic-chlorine process. This operational flexibility is also typical of other Mathieson chemicals—5 chlorine plants, 7 sulphuric acid plants, 3 alkali plants, 3 ammonia plants, provide a safety factor that assures a reliable source of chemical raw materials.

Call on us when planning current or future chemical requirements. Perhaps you can buy to better advantage from one of America's largest producers of basic industrial chemicals.

MATHIESON CHEMICALS
OLIN MATHIESON CHEMICAL CORPORATION
INDUSTRIAL CHEMICALS DIVISION • BALTIMORE 3, MD.



CAUSTIC SODA • SODA ASH • CHLORINE • SULPHURIC ACID • SULPHUR • AMMONIA • NITRATE OF SODA • BICARBONATE OF SODA • NITRIC ACID • SULPHATE OF ALUMINA • SODIUM CHLORITE PRODUCTS
ETHYLENE OXIDE • ETHYLENE GLYCOL • DIETHYLENE GLYCOL • TRIETHYLENE GLYCOL • POLYGLYCOLS • DICHLOROETHYLENE • ETHYLENE DICHLORIDE • METHANOL • SODIUM METHYLATE • ETHYLENE DIAMINE



Chandler Murphy, Director of Field Engineering Publications for Varian Associates, and a new SCIENTIFIC AMERICAN advertiser, wanted to know why so many industrial advertisers keep coming back to this magazine again and again. So we asked them...

"Why have
you repeatedly
renewed your
advertising
schedule in
Scientific American?"



Justin Oppenheim, Advertising Manager, Ketay Instrument Corp. — "To alert Technical Management to the products and services offered by the Ketay Organization, it is necessary to utilize the publication whose editorial content gets their complete readership. Once we found the right medium — SCIENTIFIC AMERICAN — we have used it over and over again with excellent results."



Herbert Peck, Partner, Hazard Advertising Co. — "The influence of Technical Management in initiating and finalizing buying decisions is frequently of paramount importance. Where technical purchases are involved, an analysis of SCIENTIFIC AMERICAN's circulation shows excellent coverage of the technical and science group in all branches of industry."



O. B. Marble, Advertising Manager, Douglas Aircraft Co., Inc. — "Our purpose in advertising with SCIENTIFIC AMERICAN is to reach a select audience. In our business, engineering and technical people are our life blood. There are never enough of them, and the competition for their services is keen throughout all industry. Since generally we have found that they read your publication, we use it too. It's that simple."

New Banking Chain Slated for California

California's Bank of America N.T. & SA, the world's largest nongovernmental bank, may soon have some competition on a state-wide scale. Transamerica Corp., which once was Bank of America's parent holding company, is planning to create an \$800-million banking complex with offices in 35 cities. It plans to do this by selling 23 banks it controls to another Transamerica bank, the First Western Bank & Trust Co. (formerly The San Francisco Bank).

These are the same banks that Transamerica attempted to sell to Bank of America in 1950, after the Federal Reserve Board had started action to force Transamerica to divest itself of most of its far-flung Pacific Coast banking empire (BW—Apr. 12 '52, p110). FRB killed the sale then. Early this year, when FRB's original injunction was no longer in effect, Bank of America again sought to buy the banks. This time, Transamerica refused to sell, and began planning a competing system.

The combination will be effected by sale of the 23 banks to First Western. Largest of the 23 banks involved is First Trust & Savings Bank of Pasadena, which has assets of \$62-million. After the transfer, Transamerica will still control 24 other banks in California, Nevada, Oregon, and Arizona.

Life Companies Go Slow On Common Stocks

Life insurance companies still aren't rushing to buy common stocks. In the first nine months of 1954, on a nationwide basis, they more than doubled their common stock purchases (\$175-million compared with \$79-million a year earlier), but common stocks still make up only 1.3% of all investments in securities and mortgages by life insurance companies.

Where state laws permit the companies to buy common shares up to a legal limit, the companies fall far short of taking full advantage of the opportunity, according to the Institute of Life Insurance.

Continued high demand for mortgage loans, and higher yield for such investments compared with the blue-chip common stocks, probably accounts for this. Life companies hold about \$25-billion of mortgages—both conventional and government-guaranteed—in contract to less than \$1-billion worth of common stocks. The total of all types of investment at the end of September was \$73.4-billion.

Clear,
lets your
appeal—go to
Sylvania Cal
both eye op
protection—

(Advertisement)

V.T. &
ovem
com
Trans
Bank
pany,
illion
n 55
elling
Trans
Bank
Fran

rans
bank of
1 Re
force
ost of
king
FRB
year,
is no
again
time,
time,
be

d by
tern.
d is
Asa
lion.
will
Calif
ona.

OW

en't
the
ion
led
75-
n a
still
ents
in-

om-
o a
ort
por-
of

ort-
ch
ne-
nts
ut
en-
in
th
all
of

54



Fresh, crisp food for thought

Like potato chips go with cold drinks . . . cellophane goes with potato chips.

Fact is, the two grew up together. Without cellophane, those golden brown chips might not be where they are today—in grocery stores and kitchen pantries everywhere.

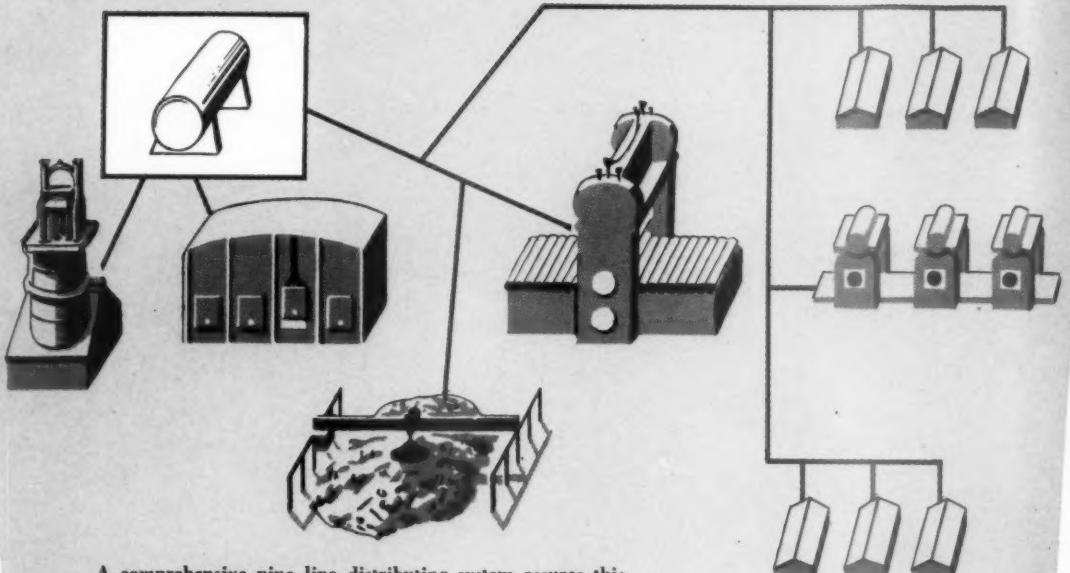
Moisture-proof, grease-proof Sylvania Cellophane keeps potato chips snapping fresh for weeks. Next time you reach for a potato chip, think about that. Does it give you a fresh packaging idea for your product?

Let's talk it over. Sylvania Division, American Viscose Corporation,
1617 Pennsylvania Blvd., Philadelphia 3, Pa.

AMERICAN VISCOSÉ CORPORATION
AVISCO YARNS AND FIBERS : SYLVANIA CELLOPHANE



How LINDE SERVICE* HELPED A STEEL MILL SOLVE AN OXYGEN SUPPLY PROBLEM



A comprehensive pipe line distributing system assures this mill of an ample and dependable supply of oxygen at every point where it is needed.

A major steel mill reached the point where it was necessary to expand its oxygen facilities. At various points along the production line, oxygen was being more widely used. How could they best insure having oxygen available at all of these points, when needed, and in the amounts needed?

LINDE was called in to study the situation. Working with mill people, LINDE service engineers designed and supervised the expansion of a comprehensive oxygen and acetylene system that would serve the requirements of the entire mill.

A network of pipe lines carries oxygen from a DRIOX Liquid Oxygen unit to every major point where it is needed. The lines range from standard sizes for general

use to special 6-inch lines that supply open-hearth shops with furnace oxygen.

This system has provided the mill with a dependable, flexible, and economical supply of oxygen. It has resulted in substantial labor savings and more efficient use of oxygen, since the oxygen supply is determined by the mill's needs, even under widely fluctuating demands. The mill pays only for what it uses.

* **LINDE SERVICE** is the unique combination of research, engineering, and more than 40 years of accumulated know-how that is helping LINDE customers save money and improve production in their use of oxygen and oxy-acetylene processes.

If your company uses oxygen, LINDE SERVICE can mean dollar savings to you. Let us tell you more about it.

LINDE AIR PRODUCTS COMPANY

A Division of UNION CARBIDE AND CARBON CORPORATION

30 East 42nd Street **UCC** New York 17, N. Y.

Offices in Principal Cities

*In Canada: Dominion Oxygen Company
Division of UNION CARBIDE CANADA LIMITED*



FINA

Earnings Corp. exp on its pre mon, com standing, expects t compared

Textile m their coun man of B of the n affected (in Mil), the as much did before

Matchma pairing o condition ment Com items in t about an share for

Savings & billion sin ing to the They now

Joy Mfg. mining e holders to ent debt borrowing Morrow, de velop ma other com of debt i company plans.

Sourness drove Arm million in fiscal year, use of ta tax reserv period we last year.

Pennsylva islation no life insur similar ba cut, and 1

Northwes ion from Proceeds

William & Hudson mors tha merger.

BUSINESS

FINANCE BRIEFS

Earnings predictions: Worthington Corp. expects to earn at least \$5 a share on its present 14-million shares of common, compared with last year's \$5.16 on the 1-million-odd shares then outstanding. . . . Southern Pacific System expects to net \$48-million in 1954, compared with \$62-million last year.

Textile mergers have just about run their course, says J. Spencer Love, chairman of Burlington Mills. And in spite of the number of mergers already effected (including several involving Bur-Mil), the smaller companies still control as much of the textile market as they did before, Love adds.

Matchmakers in Wall Street predict a pairing of Carrier Corp., leader in air conditioning, and Affiliated Gas Equipment Corp. of Cleveland, which makes items in the same field. The gossips talk about an exchange of stock: one Carrier share for 3½ shares of Affiliated.

Savings & Loan assets have grown \$4-billion since the first of the year, according to the U. S. Savings & Loan League. They now stand at about \$30-billion.

Joy Mfg. Co., leader in mechanized mining equipment, will ask its stockholders to double the company's present debt limit of \$10-million. More borrowing is needed, says Pres. J. D. A. Morrow, to bring out new products, develop markets, and possibly acquire other companies. Less than \$5-million of debt is now outstanding, and the company has no immediate borrowing plans.

Sourness in the hog and pork market drove Armour & Co. into a loss of \$5.5-million in the first 44 weeks of its 1954 fiscal year, ended Oct. 31. However, the use of tax credits and adjustments of tax reserves changed this operating loss to \$651,000 of net income. Sales in the period were \$1.7-billion, 18% less than last year.

Pennsylvania savings banks will seek legislation next year to permit them to sell life insurance over the counter, like similar banks in New York, Connecticut, and Massachusetts.

Northwest Airlines will borrow \$18-million from 14 banks in cities it serves. Proceeds will be used to buy new planes.

William White, president of Delaware & Hudson RR, denies Wall Street rumors that the road is considering a merger.



Use Commercial Credit cash to supplement your working capital

\$25,000 or millions for months or years

THIS IS THE TIME OF YEAR when cash requirements reach a peak for companies in many industries. Hundreds of these concerns, as a matter of good business, will supplement their own cash with COMMERCIAL CREDIT funds. If your cash needs are increasing, here are a few reasons why you should investigate our method:

1. We are usually able to supply considerably more cash than other sources.
2. Our resources are ample whatever your need.
3. Our cash is usually available within 3 to 5 days after first contact.
4. You use it continuously if the need exists without negotiation for renewals.
5. There is no interference with ownership, management.
6. There are no preliminary expenses, no long-term commitments.
7. Our one reasonable charge is tax deductible.

Whether your need is for a short or a long-term, our method will meet your requirements. For facts, write or phone the nearest COMMERCIAL CREDIT CORPORATION office listed below. Just say, "I'd like more information about the plan described in Business Week."

BALTIMORE 1—200 W. Baltimore St. CHICAGO 6—222 W. Adams St.
LOS ANGELES 14—722 S. Spring St. NEW YORK 17—100 E. 42nd St.
SAN FRANCISCO 6—112 Pine St.

A Service Available Through Subsidiaries of

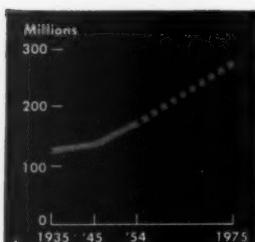
COMMERCIAL CREDIT COMPANY

Capital and Surplus Over \$150,000,000

BUSINESS ABROAD

Latin America: The Market Grows But

How Large a Market in 20 Years?



Population
There will be
100-million more people



Consumption
They'll buy a lot more



Production
It will be a
\$100-billion economy



*Output of goods & services, 1950 prices
Data: United Nations, Dept. of Commerce
Estimates by Chase National Bank and Business Week

A half a billion people, clamoring for better clothes and food, refrigerators, even automobiles. That's a picture of Latin America 50 years from now.

There are just over 171-million people in the 20 republics now. In 25 years, the population will swell to 275 million. By the year 2,000, it may be close to 500-million—twice the combined population of the U.S. and Canada predicted for that year.

Latin America will lurch into the 21st Century amid economic crises and political upsets. An explosive population growth, accompanied by more insistent demands for higher living standards, guarantees that.

- **The Cry for More**—Unsatisfied demand is the central fact of Latin America today. It's the common denominator in a vast kaleidoscope of nations, each with its own problems and potential, each at its own stage of development. In primitive Paraguay, for example, social and economic demands may still be a whisper. In an industrial suburb of Sao Paulo or Mexico City, they are a roar.

Every Latin American government hears the chorus. For this reason, each feels compelled to build industry, to enact social legislation, to force-feed its economic organism in an effort to keep up with population growth. It explains Latin America's obsession with the problem of economic development.

Again, as in the past, economic development will be the overriding issue at the conference of hemisphere financial leaders at Rio de Janeiro next week. All eyes will be on the U.S., looking for leadership and help in loans and investment, in trade and raw materials policies (page 160).

- **View from North**—The U.S. business community, meanwhile, is taking a longer look at Latin America. Each year the Latin American market changes qualitatively as well as quantitatively. Each year the needs of Latin America and the U.S. become more closely intertwined. Plans made now will have a lot to do with the U.S. role in hemisphere business 20 years hence.

I. How It Looks

It's easier to see the changes than to measure them. Sao Paulo, Brazil, is most frequently cited as an example of an industrial civilization suddenly emerging. Yet its Houstonian hustle still startles the first-time visitor.

On the
000 ft. and
with their
sales of p
The truc
been spe
stone hov
a llama a
toes as it
his crops

In the
arrival of
Jeep secr
the econo

Just ta
sense the
steel mill.
• Hard b
fluid port
in the U
In many
ing more

For sev
Economi
ica in rep
the 20 na
research o
Bank tool
at hand, a
can econo
Meanwhile
its editor
Latin Am
Hill's Ed
some prop
things the

Econo
Latin Am
and servi
1950 doll
4% year
5.4% year
in the U.
country 1
Brazil, fo
between 19
mala it w
year, on t
output by
jumped 7

The la
high one
boom; fe
maintain
could co
That wou
billion ec

People.
2.3% a y
That m
1975. A

But So Does the Competition

On the Andean Sierra of Peru, 10,000 ft. and up, you begin to see Indians with their own new trucks, bought with sales of produce to city dwellers below. The truck owner's childhood may have been spent playing around a mud and stone hovel, in a family that counted a llama and a scraggly patch of potatoes as its total wealth, yet now trucks his crops to Lima's new supermarkets.

In the hinterland of Paraguay, the arrival of a single power saw and a jeep seems immediately to transform the economy for miles around.

Just talking to a Colombian, you sense the pride in his country's first steel mill.

• Hard to Pin Down—It's a diverse, fluid portrait. Measuring and projecting economic activity as a businessman in the U.S. might do is impossible. In many countries, statistics are nothing more than educated guesses.

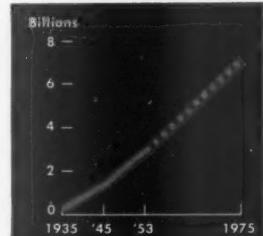
For several years, the United Nations Economic Commission for Latin America (ECLA) has done an impressive job in reporting on economic activity in the 20 nations. This fall, the economic research division of the Chase National Bank took a plunge on the basis of facts at hand, and projected the Latin American economy 20 years into the future. Meanwhile, BUSINESS WEEK sent one of its editors to take a firsthand look at Latin American growth, and McGraw-Hill's Economics Dept. worked up some projections. Here are some of the things they found:

Economic activity. Since the 1930s, Latin America's production of all goods and services has doubled in terms of 1950 dollars. That's an average rate of 4% yearly; since 1945, it has been 5.4% yearly (compared with about 3% in the U.S.). There's a wide variation, country by country: Gross output in Brazil, for example, jumped 10% between 1948 and 1949, while in Guatemala it was declining by 11%. Last year, on the other hand, Brazil increased output by only 5.7% while Guatemala jumped 7%.

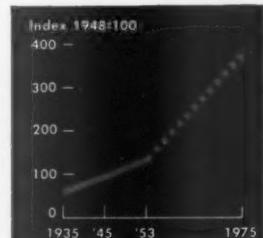
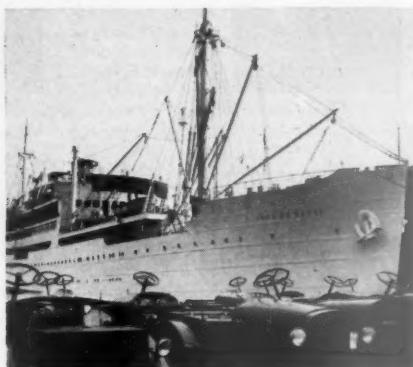
The last decade's growth rate is a high one, compounded of war and boom; few believe the pace can be maintained. But economists believe it could continue at nearly 4% a year. That would give Latin America a \$100-billion economy in 1975.

People. Population is growing at 2.3% a year, double the world average. That means 275-million people in 1975. Advances in health and nutri-

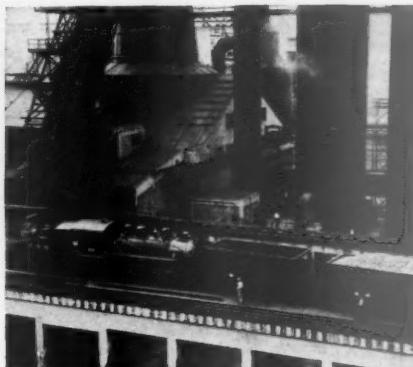
What Role for the U.S. Businessman?



U.S. Exports
They will continue to rise



On-the-spot Manufacture
It already cuts into
U.S. export markets



U.S. investment
It will have to grow
to protect our stake



**Index of manufacturing production in six nations: 1948=100

†Direct U.S. private investment in manufacturing, billions of dollars

tion, just now taking hold in many countries could push it higher.

So far, output has managed to keep a step ahead of population growth, and

average consumption per capita in the 20 nations has risen.

However, gains haven't been evenly distributed. In many nations a few

people have benefited mightily while the bulk of the people have barely inchéd ahead. Some 60% of all Latin Americans are engaged in agriculture so primitive and inefficient that three-fifths of the population produces only one-quarter of total wealth. In 1975, many millions of rural Latin Americans will still be outside the money economy, scratching out a subsistence from the influence of manufactured goods and the big new urban markets.

You can't count on per capita income rising much above \$300 per person over-all in 20 years. That's hardly one-tenth of expected U.S. income. Look at it the other way, though, and you see a 50% increase in Latin American purchasing power.

Industrialization. Latin America is primarily a producer of raw materials—coffee, sugar, oil, ores. Most industries are of the easily developed variety—foodstuffs, beverages, textiles, light consumer products, some vehicle assembly. Yet manufacturing growth has outpaced every other segment of economic activity. Output is 80% above the late 1930s, triple the late 1920s. In Brazil industrial output has increased nearly threefold over prewar; Mexico and Chile have doubled.

Now, the simpler industries are being joined by steelmaking, metalworking, chemical production, even plastics. An increasing proportion of the Latin American's purchases are domestic manufactures: his clothes, shoes, canned food, furniture, electric light bulbs, simple appliances. In a few cases, electric motors to run the appliances are produced domestically along with the steel to fabricate them.

In 1975, autos, trucks, and tractors, some machine tools, aluminum, perhaps small generators will be wholly made on the spot in countries such as Brazil, Mexico, Argentina, Chile. Meanwhile, the earlier industries will grow at a parallel pace. Foodstuffs, for example, will upgrade into more highly processed frozen and packaged foods.

Trade. The size of Latin America's commerce with the U.S. and the rest of the world in 1975 will turn heavily on events outside the area itself—war or peace, currency convertibility and availability, the changing needs of industrial nations for raw materials. There's little doubt, though, that the U.S. appetite for Latin America's coffee, sugar, bananas, ores, and oil, will continue to grow. In 1950, the U.S. imported 9% of its total needs; in the 1970s we're likely to import 20%.

This should spark a continuing expansion in Latin American mining; it should encourage Latin Americans to do a better job of expanding the volume of agricultural products for export, and if possible to develop new exports. Expansion of U.S. markets should

A Kaleidoscope of Development

Eight leading markets in terms of U.S. trade and investment:



ARGENTINA
Most highly developed economy; rich but mismanaged agricultural producer. Once a favorite of U.S. exporters, but 19-million Argentines now turning to Europe for lack of dollars. U.S. investment, at \$400-million, in difficult straits. Dictatorship encouraging new investment—and some hope for improving business climate.



CUBA
Sugar is king; when prices sag there's trouble. Third largest Latin American market (\$425-million in U.S. goods), fourth-ranking home for U.S. private investment in world (\$686-million). Minerals, including oil and light industry, offer opportunities to build up present market of 6-million.



BRAZIL
Biggest, growingest, a continent in itself with potential to match. 56-million Brazilians would buy more in U.S. (\$300-million in 1953) if they had dollars. U.S. manufacturing investment has soared to \$1-billion as nation industrializes. Expect continual economic crises, severe inflation, rising nationalism—and tremendous growth.



MEXICO
28-million Mexicans are best U.S. customers in Americas, spent \$634-million here in 1953. U.S. investors, with \$500-million at stake, are encouraged. Advancing industrialization, higher tariffs, will bring more. Nationalism growing—so outside business must become as Mexican as possible.



CHILE
Troubled copper producer trying hard to diversify. Market of 6-million weighed down by inflation, a ponderous welfare state. Short of dollars, and now buying by barter in Europe. While future holds some



opportunities in mining and industry, U.S. investment—now \$600-million—won't increase without financial and political stability.

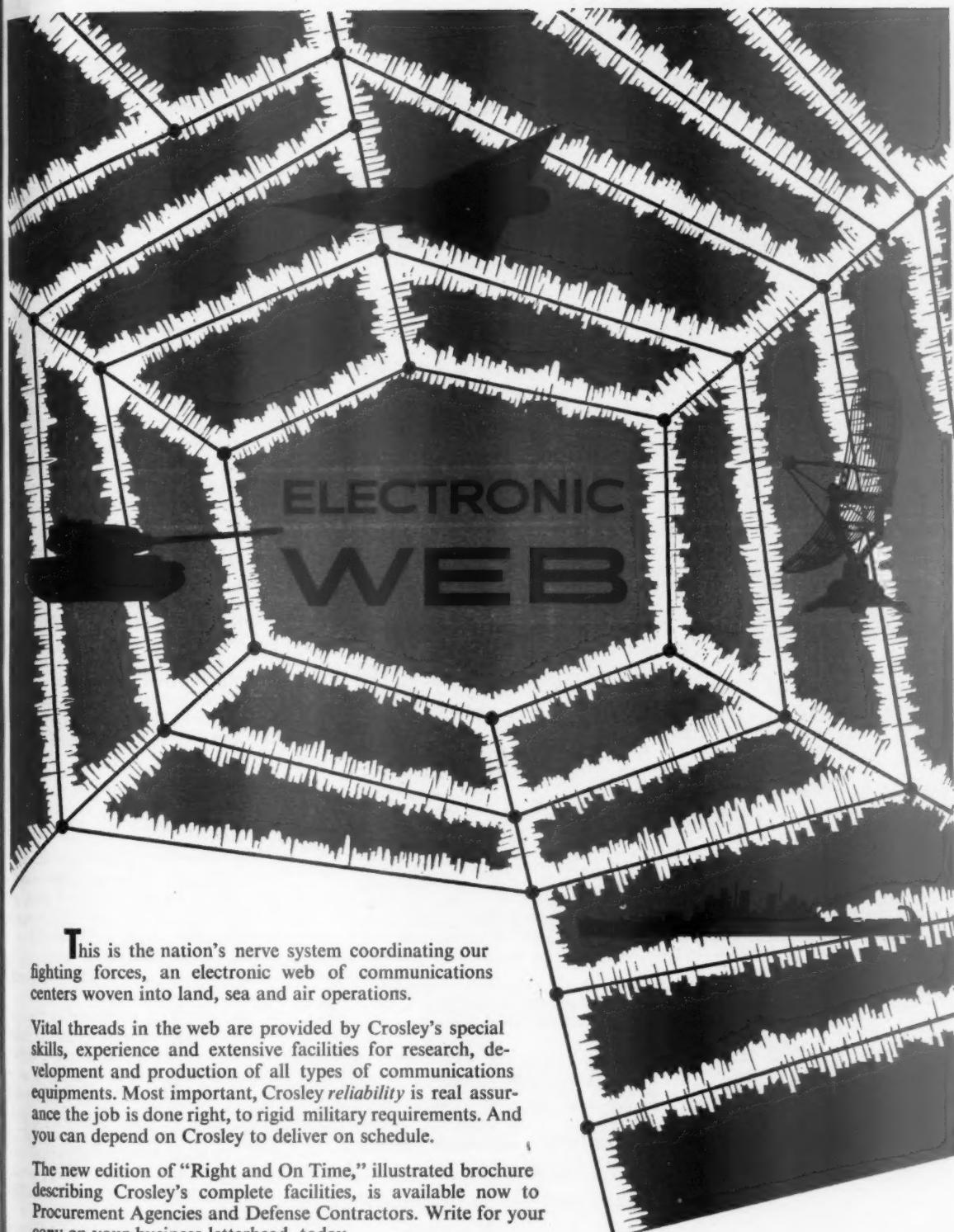
PERU
Though poor and primitive, mining and agricultural nation making big strides. Free economy, liberal investor laws attracting big U.S. mine and oil operators, with investment now \$300-million. U.S.



COLOMBIA
Rich resources, growing market of 12-million—in some ways a smaller Brazil. Coffee country industrializing fast, buying more from U.S. (\$300-million last year). U.S. investment, now \$250-million, welcomed, but Europe's influence growing. Expect increased protectionism, occasional political instability.



VENEZUELA
U.S. investment in oil- and ore-rich nation pushing \$2-billion, second largest in any foreign land. World's second ranking oil producer, Venezuela earns plenty of dollars, spends them in U.S. at \$500-million yearly rate. High-cost economy; attempts to diversify with new industry sheltering behind rising tariff. Undeveloped resources. Given political stability, steady oil and iron ore markets, 6-million Venezuelans can add to their riches.



ELECTRONIC WEB

This is the nation's nerve system coordinating our fighting forces, an electronic web of communications centers woven into land, sea and air operations.

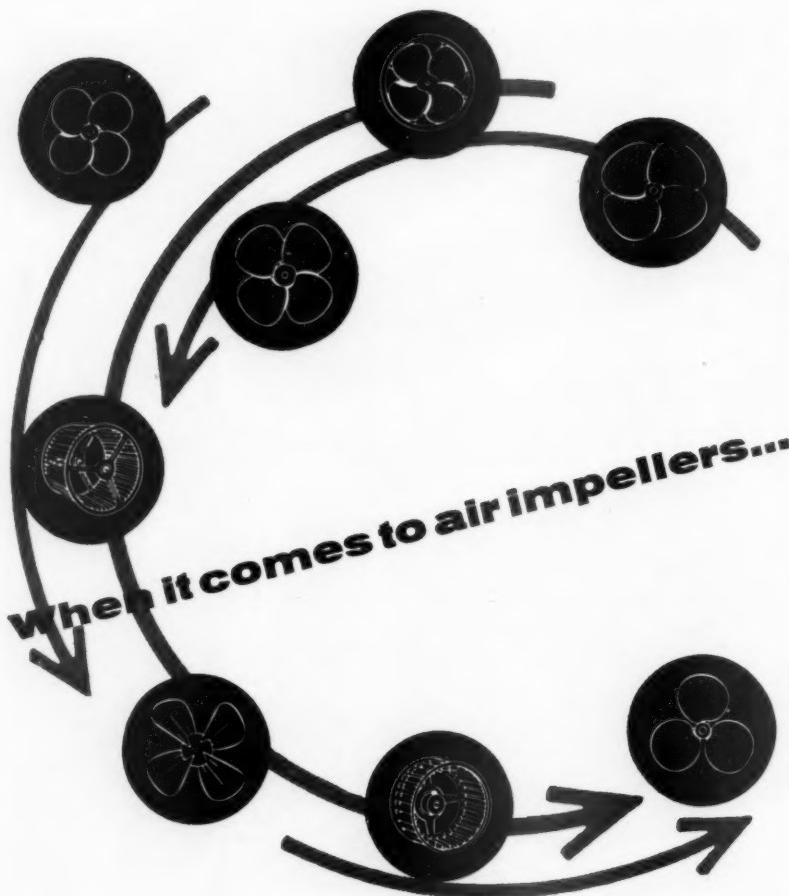
Vital threads in the web are provided by Crosley's special skills, experience and extensive facilities for research, development and production of all types of communications equipments. Most important, Crosley reliability is real assurance the job is done right, to rigid military requirements. And you can depend on Crosley to deliver on schedule.

The new edition of "Right and On Time," illustrated brochure describing Crosley's complete facilities, is available now to Procurement Agencies and Defense Contractors. Write for your copy on your business letterhead, today.

CROSLEY
CINCINNATI 15, OHIO

GOVERNMENT PRODUCTS DIVISION





**leading manufacturers
come to TORRINGTON**

The nation's foremost makers of air-moving equipment rely on Torrington for top-quality fan blades and blower wheels. Torrington provides ample productive capacity, flexible deliveries, plus a complete testing and research service for the solution of all design problems relating to air flow, sound and vibration.

Put Torrington to work for you. No one has more experience in the design, production and application of air impellers.

THE
TORRINGTON
MANUFACTURING COMPANY
TORRINGTON • CONNECTICUT
VAN NUYS, CALIFORNIA • OAKVILLE, ONTARIO



sure a backflow of dollars which Latin Americans can use to finance their growing needs for industrial equipment.

• Shift in Needs—Latin America's headlong industrialization has already changed the composition of its purchases from the U.S. Local production has long since replaced imports of toothpaste in many markets; it is beginning to cut down imports of such manufactures as steel rails. In 1939, 42% of all Brazilian imports was in consumer goods, 31% was in machinery, heavy equipment. Now the breakdown is 32% in consumer items, 44% in capital goods.

Nonetheless, industrialization creates many more needs than it can satisfy. Industrial nations (like Canada) and rapidly industrializing nations (like Mexico) are the best customers for U.S. products. Latin America in 1975 may be buying between \$6-billion and \$7-billion worth of goods in the U.S. compared with \$3-billion now. It will be buying a lot more from Europe, too, and competition for the market will be vigorous.

It won't be easy trading. Latin America's export earnings will often fall short of matching the needs for imports, and frequently only the most essential industrial goods will make the southward trip from the U.S. But between now and 1975, Latin America will have little choice about buying heavily to develop transport, agriculture, power and fuel output. These fields are basic to all development, and they must be conquered first.

II. Rough Road

Make no mistake: Neither 1975 nor even 2000 will bring the millennium to Latin America. Country after country will suffer through political upsets and through crises caused by bad financial management.

Inflation is constantly gnawing at Latin America. It distorts growth, blocks the flow of capital into productive enterprise by encouraging the get-rich-quick type of real estate venture. Ten years of one of the world's lushest inflations have hobbled Chile's progress. In Brazil, inflation has created more and more bitterness among workers and the white-collar folk of the big cities. It leads to high costs, low productivity, overpricing of export goods.

• Barriers Up—Economic nationalism is one reaction to inflation, and it is increasing everywhere. Import licenses will be used in the future as much to protect local industry as to save foreign exchange. Tariffs are rising, too. Latin American leaders are convinced that protection is essential to their industrial economies.

The threat of nationalization frightens capital. Some Americans believe the

Am
TH

HERE
shore, si
seismic
searchin

But v
goes, A
insurance
fits the
property

With
located
serves A
lands. A
are setti
at home

Wher
lands—
insuran

Ask y
to take
problem

Writ



American business gets into THE ODDEST PLACES!

HERE in the waters off a distant shore, sits a member of an American seismic team—sounding, testing, searching for oil. Yes, American business gets into the oddest places.

But wherever American business goes, AFIA goes—providing American insurance protection that expertly fits the job, the personnel, the property and equipment.

With 500 offices and agencies located throughout the world, AFIA serves American business in foreign lands. And when trouble strikes, claims are settled promptly and in full, here at home or on the scene.

Wherever your business in other lands—whatever its type, AFIA affords insurance protection unsurpassed.

Ask your insurance agent or broker to take your foreign insurance problems to AFIA.

Write for new AFIA booklet



AFIA

AMERICAN FOREIGN INSURANCE ASSOCIATION

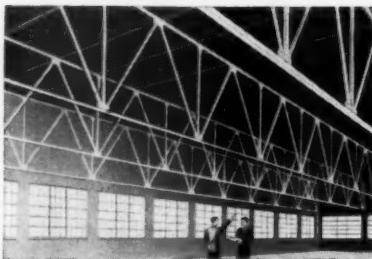
161 William Street • New York 38, New York

CHICAGO OFFICE . Insurance Exchange Building, 175 West Jackson Blvd., Chicago 4, Illinois
DALLAS OFFICE Mercantile Bank Building, 106 So. Ervay Street, Dallas 1, Texas
LOS ANGELES OFFICE Pacific Mutual Building, 523 W. 6th Street, Los Angeles 14, California
SAN FRANCISCO OFFICE 98 Post Street, San Francisco 4, California
WASHINGTON OFFICE . . Woodward Building, 733 15th Street, N.W., Washington 5, D.C.



"A salute to those
who made it possible" *

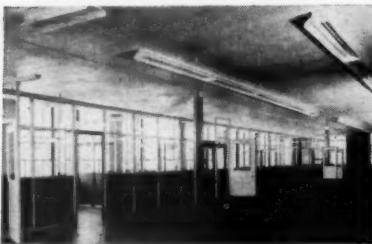
This old factory



was changed overnight



to this modern office



With Fenestra Acoustical-Structural Metal Building Panels

They simply laid and interlocked Fenestra® Acoustical-Structural Building Panels side by side to span the space between the roof trusses and form a flat, smooth, acoustical ceiling. And a load-carrying storage floor for ducts, air conditioning, electrical services and such.

All the while this was being built, company employees went right on working below! Cost? Less than \$1.25 per square foot... installed!

Write to Detroit Steel Products Company, Dept. BW-11, 3425 Griffin Street, Detroit 11, Mich., for complete details.

*Trademark

*Your need for a maintenance-free, noncombustible, built-in acoustical treatment encouraged us to develop Fenestra Acoustical-Structural Building Panels.

Fenestra

METAL
BUILDING
PANELS

day of bigger and more frequent nationalizations is coming—on the pattern of Mexican oil, Argentine railroads, Bolivian tin.

It's pollyanna to assume that big foreign-owned utilities, transport systems, and natural resource developments are safe from nationalization, especially when they are so large that the decisions of outsiders can materially affect the economy of the host country. Some of these are bound to be nationalized, or forced by increasing taxation and discrimination to sell out. But as a philosophy, an end in itself, nationalization is not part of Latin American thinking. Indeed, you see signs that the idea is losing favor in many countries—as impractical, expensive, troublesome.

Nationalization threats are usually the political war whoop of extremists who want to win votes or cause trouble. Nevertheless, politics can often mean a great deal to the potential investor in Latin America.

• Politics—Latin America's politics, once an almost comic melange of palace revolts and colorful caudillos, has recently taken on a more sinister hue—because of the Communist threat.

Many observers fear that a combination of neo-Fascist and Communist totalitarians will one day create a confused and hostile Latin America, a real threat to the U.S. Others, including experienced diplomats and businessmen in the area, are more optimistic. They admit the danger of Communism; they're inclined to put a little more faith than most Americans in the "enlightened" military dictator. They believe that progress toward democracy is being made, little by little, and that Latin America can develop its own moderate political institutions.

Washington experts in the field believe that Latin America's close ties to the U.S., the area's isolation from the Soviet bloc, the nature of Latin Americans themselves make it inconceivable that an important part of the hemisphere would be aligned for long with Soviet policy. At worst there will be temporary bouts with homegrown Communist or Fascist regimes that follow an anti-Yankee policy until it ceases to pay off, and then, by the process of political evolution, the pendulum will swing back.

III. Investment

There's no question that Latin America's combination of political and economic instability impedes the flow of needed capital from abroad. The net increase in U.S. private capital overseas in the past three years has been disappointing.

The Economic Commission for Latin America believes that the 20 republics

will need \$1-billion a year in outside capital to keep their development from breaking down. This will call for more public financing from institutions such as the World Bank and the Export-Import Bank. But private money is counted on, especially by the U.S., to do the lion's share of the job. For that reason, Washington is backing the plan for an International Finance Corp. (page 160) that will try to stimulate private investment abroad.

• Warm Climate—Money won't emigrate to Latin America unless the climate is reasonably hospitable. This fall, there are some signs that the climate is improving.

It's always possible to miss the long-term opportunities because of short-term clouds. Many experienced investors in Latin America, who have ridden out inflation and political upsets, will echo the view of one American in Brazil: "If I spent all my time reading about today's exchange crisis, the political crisis, the labor crisis, and the black outlook for tomorrow, I'd be in such a stew that I wouldn't stick to the business of making money. And let me tell you we're making money."

Others, with a more philosophical bent, count on something that might be called "tropical empiricism"—a peculiarly Latin brand of "muddling through." It consists of putting off unpalatable decisions until you teeter on the brink of disaster, then suddenly getting sensible.

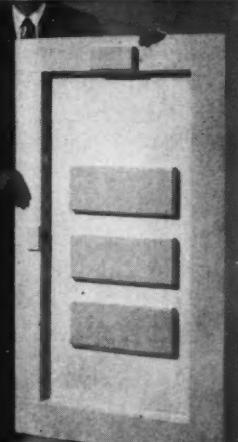
• More Enlightened—There's something to be said for the philosophers. A number of countries show increasing savvy in meeting their economic problems; Colombia, Mexico, Peru are examples. Crisis-ridden Brazil, with new hands at the controls, is attempting austerity. Chile boasts a new hard-money man in the finance ministry.

It's less a problem of finding the right policy, more a problem of convincing the country that it must take strong medicine.

Extreme nationalism still echoes from the lunatic fringe of Communists and self-appointed saviors; it will continue to bedevil Latin America. But rarely does it seem to have deep-seated popular appeal. So far, at least, Vargas' bitter legacy of antiforeignism has found few disciples in Brazil. And the champion Yankee-baiter of them all—Argentina's Peron—is now at pains to explain to his countrymen (and to dubious Americans) why foreigners must help in the nation's development.

IV. Planning for Business

Latin America's journey to 1975 will resemble nothing so much as a trip along one of its typical roads: rough and uncertain, full of potholes. The U.S. businessman needs a good set of



Large door panel for freezer, vacuum formed from a sheet of TGD-5001. Material's high impact strength is important to this job.

Refrigerator freezer door frame shows fine detail and excellent finish possible with injection molding compound TMD-5151.



This one-piece display stand is vacuum-formed from a sheet of TGD-5001. Note the deep-draw and undercuts that have been achieved in one operation.

New High-Gloss, Improved Impact Styrenes THAT MAKE HANDSOME, HARD-WORKING PRODUCTS

A major advance in product designing is made possible by the new *high-strength* BAKELITE Impact Styrene Plastics that combine toughness with high gloss, attractive color, and production economy. One injection molding compound has eight* times the shock resistance of general-purpose styrene plastics. Another compound, developed expressly for extrusion, can be extruded into high gloss sheet for subsequent low-cost vacuum forming.

These materials are the result of an extensive research and development program aimed at producing impact styrenes superior to any hitherto available. BAKELITE TMD-5151, for injection molding, permits execution of highly-detailed, intricate designs, such

as refrigerator freezer door frames, requiring toughness and rich appearance. BAKELITE TGD-5001 extrusion compound produces sheets that can be post-formed with deep draws and undercuts.

Choice of compound depends on which fabrication method is more economical for your particular manufacturing requirements. Both types are excellent for refrigerator panels, signs, machine housings, TV masks, toys, and housewares. Outstanding blend-to-blend uniformity assures color matching on orders received months apart.

New modern production facilities assure continuity of supply on a commercial scale. Write Dept. ZF-61.

*ASTM average Izod test values using notched $\frac{1}{8}$ in. bar at 74 deg. F.

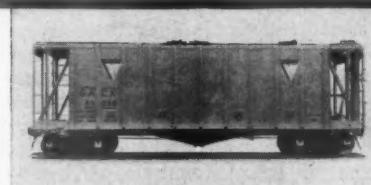
BAKELITE
TRADE MARK
IMPACT
STYRENE PLASTICS

BAKELITE COMPANY
A Division of
Union Carbide and Carbon Corporation
UCC

30 East 42nd Street, New York 17, N. Y.
In Canada: Bakelite Company
Division of Union Carbide Canada Limited
Belleville, Ontario



WHOLE CEILINGS constructed from corrugated BAKELITE Rigid Vinyl Sheet conceal lighting fixtures, diffuse light, soften glare and shadows. Easily removed for lamp replacement. Made by Benjamin Electric Mfg. Co., Des Plaines, Illinois.



OUTLASTING ORDINARY PAINTS 5 TO 1, coatings based on BAKELITE Vinyl Resins resist acids, alkalies, chemicals, corrosion, weather. General American Transportation Corp. car with coating by The Glidden Co., Cleveland 2, Ohio.



SAFE, PERMANENT STORAGE for 100 45-rpm records is provided by the "Kadette-45", molded in two pieces from BAKELITE Phenolic Plastic, in rich black or walnut color. Made by Mid-Continent Plastic Products, Kansas City 5, Missouri.

**opens itself . . .
closes itself . . .
pays for itself**

economatic *Automatic* DOOR OPERATOR

A few minutes can save you many valuable hours of production time! An NP Stop Watch Survey, made in your plant, will prove that ECONOMATIC AUTOMATIC Door Operators can greatly reduce the manhours now spent in materials handling.

The ECONOMATIC actually pays for itself in 2 to 3 months! In addition, it eliminates door damage, improves temperature and humidity control, provides positive fire door protection.

Write today for complete information. NP also makes SUPERMATIC — the automatic door operator designed for the modern store front.

NATIONAL PNEUMATIC CO., INC. AND HOLTZER-CABOT DIVISIONS

125 Amory St., Boston 19, Mass.

Sales Service Representatives in
Principal Cities throughout the World
Designers and manufacturers of mechanical,
pneumatic, hydraulic, electric and electronic
equipment and systems

ROLL and WRAP FLEXIBLE MATERIALS *automatically*

You can save time and
labor with a Dyken machine
if you roll lengths of
SCREENING • LAMINATED PAPER
TEXTILES • ROOFING • RUGS
• WALLPAPER • CARPETING •
PLASTIC • RUBBER • LEATHER
FELT • LINOLEUM • CANVAS
CORK • PADDING • OILCLOTH
BURLAP • INSULATION
and other pliable materials!

ONLY A DYKEN Rolling Machine
will roll (or roll and paper-wrap)
lengths of flexible material . . . without
requiring center cores, starting bars
or mandrels. Automatic starting.
Push-button control permits using
unskilled operators. Compact rolls
save storage and shipping space.
Standard machine models available
for all material widths and lengths.
Fully patented.

**WRITE TODAY FOR COMPLETE
DETAILS**—Describe your problem fully
for recommendations by our engineers.
No obligation.

DYKEN MFG. CO., Inc.
732 Indiana Ave.
West Bend, Wis.

**"... some companies could
do a better job selling
Latin America if they
buckled down . . ."**

LATIN AMERICA starts on p. 142

shock absorbers, a quick hand at the wheel to avoid political boulders as they are tossed on the right of way.

Some may ask if it's worthwhile for their companies to take the time and risk to cultivate the market. With few exceptions, companies that have done a large business in Latin America, as traders and investors, answer "yes." It's surprising how many U.S. corporations find that overseas earnings account for the difference between profit and loss, or between a healthy showing and a so-so showing. If you assume that U.S. business will increasingly look abroad for markets, the number of such companies will increase. Certainly, Latin America's preeminence as a customer and a supplier will grow (BW—Special Report, Oct. 31'53).

• **Long View**—Up and down the hemisphere, U.S. businessmen are getting this advice on how to play the growing market: Take a longer-range view than ever before, and don't count success or failure on the basis of one year's, or even five years', showing.

• **Competition**—The export salesman no longer takes just a short swing south of the border to fill his order book in a series of two-day stands. Today, what had been his exclusive preserve for a decade seems to be crawling with German, French, Italian, British, and occasionally Japanese competitors. In many markets a local factory is just shaking down, preparatory to producing his product. And where there used to be plenty of dollars available for prompt payment there seem to be none.

The European competitor is thorough. He cultivates the customer with patience, excellent Spanish and Portuguese, offers trips to Europe, even kickbacks now and again. He also offers an increasing array of quality goods, tailored to Latin American needs and tastes.

• **Made in U.S.A.**—The European has an uphill fight to recapture his prewar 44% share of Latin American markets. Preference for Made-in-U.S.A. is strong everywhere, even in nations with a strong European orientation, such as Argentina. However, that preference could be whittled away by the prolonged absence of U.S. goods from a specific market (because of trade restrictions). You can conceive of the U.S. share of Latin American purchases—now about 55%—declining as far as 40%. This would still be well above the prewar 36%.

The record seems to show the U.S. holding its own, over-all. Trade figures for the past three years, the time of the upsurge of European competition, show U.S. exporters keeping their relative share of Latin America's imports.

• **Credit**—Lack of export credit facilities has been a problem for Americans. Hire money costs 1% or more per month. In many Latin American countries importers can't afford to pay for their U.S. purchases with cash on the barrelhead. So when a European comes along with long credit terms, the Latin American is tempted to buy, though he may prefer U.S. goods and would be willing to pay more for them if he could muster the money.

Now, many of the larger U.S. exporters are extending more liberal terms to old customers, and the Export-Import Bank is making general lines of credit available to exporters. Other export credit schemes are under study, and it looks as if Americans will be on a more equal footing, creditwise, with the competition.

• **Salesmanship**—Occasionally, though, lack of credit is blamed for loss of business when good old-fashioned selling and more adaptability, might have kept it. Private bankers and experts at Commerce Dept. and Ex-Im Bank have found only a relatively small percentage of cases where U.S. businessmen's howls for help have been justified by a real threat of unfair foreign competition. They imply that some companies could do a better job selling Latin America if they buckled down.

This is small comfort to a manufacturer who has just lost a \$5-million order to the Germans, but the experts make the case that European competition is a healthy development, not only from the standpoint of the free world's trade but also because it keeps U.S. business on its toes.

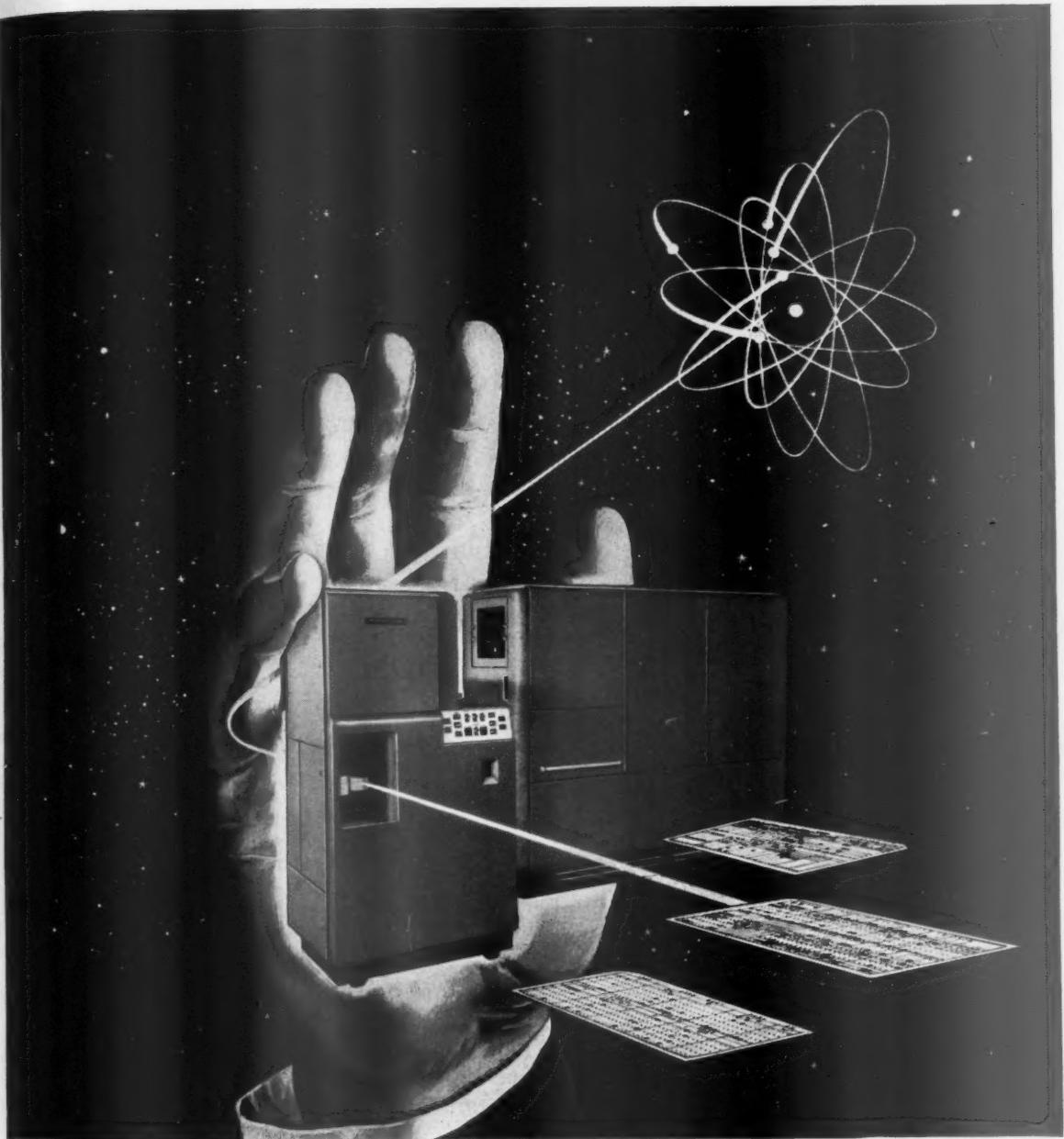
• **Investors**—There comes a time when the most vigorous export promotion fails to sell the goods. The market may be too big to supply from long distance, or there may be problems of exchange shortages, import restrictions, European or local competition. Then the question comes up: Can we take better advantage of the Latin American market by growing inside it?

Many companies have decided that they can, particularly in the larger, industrially advanced Latin American countries. More than 2,000 Latin American enterprises are wholly or partially financed from the U.S. They produce between \$1-billion and \$1.5-billion yearly, close to 50% of the total value of U.S. exports to Latin America. In the 1920s, they produced one-quarter of the total; in 1975, they may produce two-thirds.

• **Moving In**—Along with the trade competition from Europe come busi-

The new
that cuts
tighten

You've
process
mountain
electronics
advanced
makes hu
decis



Announcing **UNIVAC 120**

for punched-card electronics

**The new electronic computer
that cuts operating costs —
tightens management controls.**

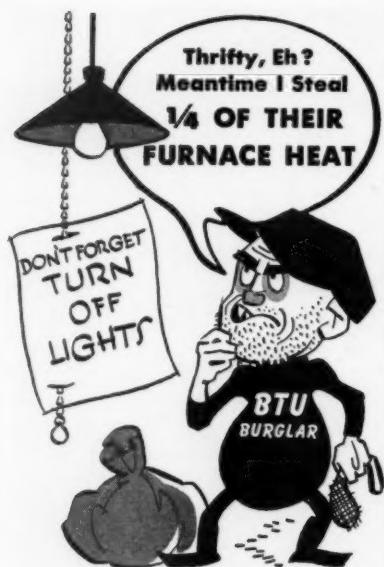
You've heard of Univac, the data-processing system that eats up mountains of paperwork in a flash of electrons. Now here's Univac 120, the advanced *punched-card* computer that makes hundreds of calculations and logical decisions in a fraction of a second.

See how Univac 120 races through complicated problems of production control and engineering design. How it saves machine steps on payrolls and cost records. How it saves manpower on billing, accounting, sales analysis and other records.

What's more, with Univac 120 you can afford to get many special reports that take guesswork out of management decisions. It will dig out basic

facts and figures that up to now have cost too much or taken too long. Why not put it squarely up to us to show you how punched-card electronics can pay its way several times over in your organization? Room 2105, 315 Fourth Avenue, New York 10.

Remington Rand
Electronic Systems



There are hard ways—and easy ways—to save money. But one of the easiest is to chase the BTU Burglar out of your plant. His thefts there—your needless heat losses—may right now be costing you hundreds of dollars per year in a single furnace.

Typical example: A small steel plant replaced ordinary heavy firebrick with lightweight B&W Insulating Firebrick in an annealing furnace. Fuel costs were cut over 26%—a \$1,760 yearly savings in just one furnace.

Heavy furnace linings waste your fuel dollars two ways: They soak up and hold large quantities of heat which are lost when the furnace is cooled; and they conduct and lose too much heat through the walls. Lightweight insulating firebrick, containing millions of tiny air cells, heat up and cool quickly, absorbing and storing very little heat. Also, they resist heat flow, keeping it inside the furnace to do productive work.

The lighter the insulating firebrick the more you save on fuel. The lightest you can buy are B&W Insulating Firebrick.

This easy way to cut fuel costs has been proved in thousands of industrial furnaces. For similar savings, bring B&W Insulating Firebrick to the attention of those responsible for furnace operations in your plant. Write to B&W today for complete information, or call in your local B&W Refractories Engineer.



"...the European has come to stay with his trunk rather than his briefcase..."

LATIN AMERICA starts on p. 142

ness immigrants. In the case of a large firm—say, a Ruhr steelmaker—a new Brazilian plant in partnership with local capital offers a secure base in the new world. Smaller investors may come bag and baggage, bringing their capital and their children and determined to nourish both in a more secure setting than a divided Europe.

Often these immigrants go to work in small manufacture. And they take root quickly: Their culture, respect for language, approach to doing business are "simpatico" in the Latin America scheme of things.

Above all, the European has come to stay, with his trunk rather than his briefcase.

• **Taking Root**—The same will be increasingly true of U.S. business ventures. The day of fast, easy profits, sent home regularly to the stockholders, is fading in many Latin American nations. Governments, responsive to nationalist public opinion, insist that the foreign investor make himself part of the local scene, contributing the majority of his energies to the national welfare. They grant him the right to a fair profit, and no more.

Besides, Americans will have to think of their profits more in terms of local currency, not exclusively as dollars in a U.S. bank. There will be lean years when there is no recourse but to plow cruzeiro or peso earnings back into the country of their origin.

There's rising pressure in Latin America to domesticate foreign operations—with local participants, with local capital. Some U.S. companies are already selling shares to local businessmen; others are exploring the possibilities of doing it. Many new investments are taking the partnership form from the start. At the very least, this takes the "foreign" stigma off the enterprise. It's not a general rule, however. Sears, Roebuck has done well in a half dozen Latin American ventures as a wholly U.S. operation.

Advice to Beginner—No Latin American venture can be entered into lightly. Old hands set out these principles for the novice:

- Go and see for yourself. Too often, top management relies on reports of export managers or division executives to make the decision on investment.

- Study the market for your product, get help in market surveys. A plant in Brazil, for example, won't sell in other countries. There's little intra-

Latin American trade in manufactured goods.

- Be sure raw materials and other supplies are available locally. If you depend heavily on import of materials and your product is not an "essential" one, trade troubles can shut you down.

- Study the history of how foreign capital has been treated in the country in question. Don't let a record of a single railroad or oil nationalization alone keep you away. Note the changing laws governing incorporation, profit and capital remittances.

- Consider what kind of setup is best. A royalty or licensing deal with local investors, perhaps involving stock ownership, is sometimes the best way to begin. There are advantages and disadvantages, country by country, of a foreign-incorporated subsidiary against simply a registered branch of the parent company.

- Pick local partners carefully. Choosing men solely for their impressive political pull can backfire when another government takes over. Yet you want Latin Americans with ability, reputation, good connections.

- Start slowly. Pick executives with extreme care: men who are adaptable to a different business psychology, who like living abroad (frequently the wife is the greatest problem), who are prepared to stick it out.

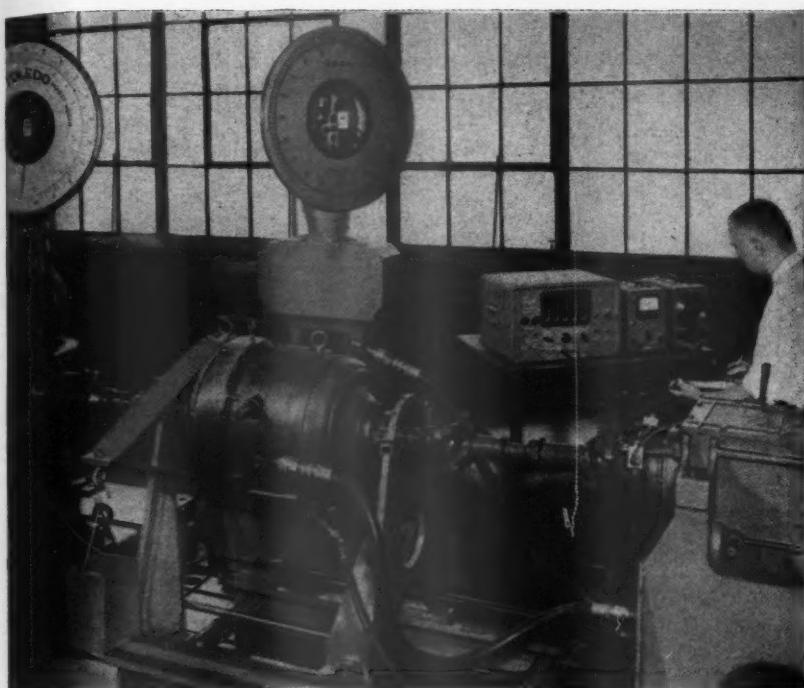
- Reward—Every U.S. business that has set up shop in Latin America has had to weigh risks, admittedly greater than at home, against the opportunity for profit and the necessity for protecting its market. Mostly, they've done well—if they have gone in on a realistic, long-term plan. Many have written off their investment in a few years. Those who have got hurt, by and large, are those who pulled out at the first sign of trouble.

A New York banker, with years of Latin American experience, sums it up: The newcomer, with his eyes on 1975, will need a lot of "stomach." But if he goes to stay, it's almost impossible for him to so mismanage his affairs that he doesn't make money.

REPRINTS AVAILABLE

Single copies of this article will be available in about four weeks to BUSINESS WEEK subscribers upon request without charge. Other copies will be billed at the following rates: 1 to 10 copies, 25¢ each; 11-100 copies 21¢; 101-1,000 copies, 17¢; over 1,000, 15¢. Address orders for reprints to Reprint Dept., Business Week, 330 West 42nd Street, New York 36, N. Y.

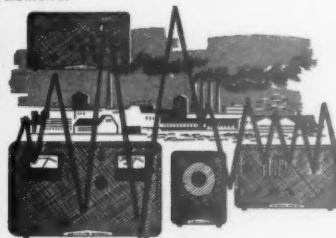
Your business is in the Age of Electronics



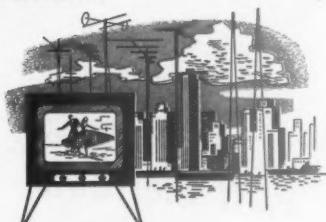
Modern measuring. Twin Disc engineers connect a Hewlett-Packard electronic counter to magnetic pickups. Pickups are actuated by gear teeth on torque converter shafts. Counter shows speed ratio instantly, accurately, in direct-reading digital form. In many counter applications, non-technical personnel make precision measurements without special training.



Radar, sonar and other electronic military achievements were made possible by accurate, dependable electronic test instruments. Now, advanced models of these same instruments are invaluable in rocketry, nuclear physics and research into interstellar phenomena.



Throughout science and industry, electronic test instruments make routine measurements faster, more accurately; increase knowledge by opening the door to measurements once not possible. Electronic test instruments work by measuring or comparing electrical impulses from natural or man-made sources.



Your TV picture is clear and steady, and color TV is now at hand, thanks to electronic test instruments. TV set makers use instruments to design better circuits, speed manufacturing and improve testing. Broadcasters use them to monitor equipment performance and maintain transmitters and microwave networks in perfect operating condition.



**WORLD LEADER IN
ELECTRONIC MEASURING
INSTRUMENTS**

Field engineers serving all principal cities

HEWLETT-PACKARD COMPANY

275 PAGE MILL ROAD • PALO ALTO, CALIFORNIA, U. S. A. Cable "HEWPAC"

5165

NOW!

Powder Metallurgy PLUS
Simplified Design provides

A LOW PRICED, HIGH CAPACITY Gear Coupling for $\frac{1}{2}$ " to $1\frac{1}{4}$ " Shafts



NEW Sier-Bath
Medium Duty
FLEXIBLE GEAR COUPLING

- Powdered steel for low price
- Full 2 horsepower per 100 rpm
- Can be run at high speeds
- Only 7 parts—assembled in seconds
- Weighs only $3\frac{1}{2}$ pounds

See it at the
POWER SHOW
Booth 109

Sier-Bath GEAR & PUMP CO., Inc.
9258 Hudson Blvd., North Bergen, N. J.
Mfrs. of Precision Gears, Rotary Pumps, Flexible Gear Couplings
Founded 1908 Member A.G.M.A.

Lost Weekends Worry France

Premier campaigns against alcoholism . . . Guatemala hopes stable government will lure back tourist income . . . Miami beefs up for Latin-American trade.

Premier Mendes-France dealt the French male a low card during his Saturday night fireside chat, just before shoving off for Canada and Washington (page 159). He took up the cudgels for the French version of the WCTU with a direct appeal to the French housewife.

He asked for support of the government's campaign against alcoholism. Within the past few days Mendes' government has (1) increased the tax on alcoholic drinks by 20%, (2) tightened control over legalized home distillers, and (3) closed bars between 5 a.m. and 10 a.m.

Paris cynics (when not smirking at the Premier's fetish for drinking milk) think the campaign is concocted of equal parts of politics, morals, and economy. For the most part, the wine and liquor producers aren't Mendes' political supporters, so he has little to lose there. Most of the legalized home-brew (about half of France's annual wine and liquor production of nearly 5.3-million gallons) is drunk at home untaxed. Rural areas seem more affected by alcoholism than cities.

The campaign is calculated to win the support of a minority—small but vocal—that for years has been warning France about its problem of alcoholism. Medical circles, particularly, have taken up the fight in recent years.

Frenchmen drink an average of more than three times what the average American puts away in a year—and twice as much as the Italians.

Just how seriously the French will take Mendes' campaign is open to question. One barometer is the fact that, so far the wine and liquor retailers haven't dignified it with a counter-campaign.

Guatemala's tourist hotels had more people in them last week than at any time since the tinge of the deposed government became clearly Red some years back.

The inhabitants, from new Pres. Castillo Armas right down to the lowest businessman, hoped they might stay full.

This was made amply clear to the 74 newspaper and magazine writers who were flown in and shown the sights by Pan American World Airways. Red carpets were out and marimbas tinkled as the authorities showed off Indian crafts and customs as well as the little

country's noted volcanos, lakes, and coffee. No effort was spared to cement an impression that the revolution has reigned in a popular and stable government.

The idea, unabashedly, was to get the tourists back. Their numbers are estimated to have fallen from peak-year totals of around 50,000 to 4,000 in 1953.

That swing may be overstated, but the Bank of Guatemala lists a drop in tourist revenues from \$2½-million in 1948 to \$1½-million last year.

The new officials are out to reverse that trend now and to do even better in the long run. They speak enviously of an estimated \$170-million in Mexican tourist revenues in 1953, talk of increasing Guatemala's take to one-tenth that much in some rosy year.

Meanwhile, they hope that confidence-built on climbing tourist revenues and still-high coffee earnings—may help lure home some of the estimated \$50-million of capital that fled Guatemala before the revolution.

Miamians have looked with jaundiced eye for a long time at the Latin American business of other southern U. S. gateways, particularly New Orleans and Galveston. Now they're ready to do something about it.

Two New York investment houses—Lehman Bros. and Van Alstyne, Noel & Co.—have signed a preliminary contract with the Inter-American Cultural & Trade Center of Miami. This group, headed by Harry A. McDonald, a former RFC administrator, aims to give Miami a permanent \$60-million Latin American exposition.

The group plans to float a bond issue to build a vast array of buildings on a 1,700-acre tract that the city of Miami has made available. The exposition will be half-tourist and half-industrial, much like the Chicago and New York World's Fairs.

Boosters of the plan estimate that 100,000 free-spending Latin visitors, as well as hundreds of thousands of winter tourists, can put the exhibition across. There have been some local doubters who question whether industrial exhibitors could be attracted. But with two reputable New York firms picking up the bonds, the project looks brighter than ever.

S

If you paint
PAINTGRIP
production c

One man
foot on pain
rolled steel t

Although
more per sq
need for a p
a square fo
thermore, it
cent, without

You'll fin
where a sm
products give



Special steel cuts paint costs 2½ cents a square foot

Helps manufacturer boost production 40 per cent too

If you paint your sheet metal products, Armco Cold-Rolled PAINTGRIP may help you lower shop costs and increase production as well.

One manufacturer, for example, saved 2½ cents a square foot on painting costs by changing over from regular cold-rolled steel to this special Armco Steel.

Although Armco PAINTGRIP costs him about 1½ cents more per square foot for 20-gage material, it eliminates the need for a primer coat on both sides of the steel (at 4 cents a square foot). Net saving: 2½ cents a square foot. Furthermore, it helps him boost production more than 40 per cent, without any increase in painting facilities.

You'll find that Armco Cold-Rolled PAINTGRIP is ideal where a smooth, uniform paint finish is essential. And your products give customers a bonus of longer paint life. Tests

show that paint lasts several times longer than on regular cold-rolled steel. There is no premature flaking or peeling.

We'll be glad to send you complete data on this special Armco Steel. Just fill in and mail the handy coupon today.

ARMCO STEEL CORPORATION
584 Curtis Street, Middletown, Ohio

Please send me a copy of the catalog on Armco
Cold-Rolled PAINTGRIP.

Name _____

Firm _____

Street _____

City _____ Zone _____ State _____

ARMCO STEEL CORPORATION

MIDDLETOWN, OHIO



BUSINESS ABROAD BRIEFS

*Write All Three
at Once!*



1. Payroll Summary
2. Individual Earnings Record
3. Payroll Receipt

**National's Multiple Posting Binder for Payroll...
Also Saves Time on Accounts Receivable and Payable**

This new "3 in 1" binder assures "3 in 1" speed in payroll record-keeping. Each binder handles up to 35 employees and one entry takes care of Payroll Summary, Individual Earnings Record and Payroll Receipt. It's a real clerical time and money saver — minimizes copying errors, also. Yes, and the binder may be used for receivables and payables. Your own checks are good — no special checks are required. The cost of the binder complete with forms is low. Write for Folder MP-1 for full details.

FEATURES:

- 3 records in 1 writing.
- Not necessary to arrange forms in alignment on pegs as in other systems.
- Mechanism holds stock column pads for other types of systems requiring multiple writing... accounts receivable... accounts payable... analysis records.
- Compact... portable... easy to operate.
- No special checks required.



**NATIONAL BLANK
BOOK COMPANY**
HOLYOKE · MASSACHUSETTS

Dealers Everywhere

Hilton Hotels Corp., expanding everywhere in the world, makes its Canadian debut in 1957. Hilton has a management contract with Canadian National Railways to run the \$20-million Queen Elizabeth, now building for CNR in Montreal. The Elizabeth, with 1,200 rooms, will be the largest hostel in the British Commonwealth.

U.S. import cuts from Belgium have hit Belgians hard. The 1954 export total to the U.S. is likely to fall \$35-million to \$40-million short of 1953's \$236-million. The big drop stems from fewer sales of steel, copper, zinc, rayon, and fertilizers.

Formosa reports per-acre rice yields are way up this year. There will be some 100,000 tons more than last year, a good part of it for export. But the Formosa news—coupled with reports that Australia may try rice-growing on its uninhabited northern mudflats for export to Asia—isn't good news for Asian rice producers, already burdened with surplus (BW—Nov. 6 '54, p142).

Lufthansa, the new German airline, has permission to import four planes purchased in the U.S. But the final go-ahead for the airline to fly still hasn't come through (BW—Oct. 23 '54, p140). . . Meanwhile, the East German government has announced the formation of a Soviet-backed Lufthansa in the Russian-occupied zone.

Franco-Russian trade moves forward with the signing of a new 18-month agreement, retroactive to July 1. The accord calls for 60% more goods to move between the two countries—\$83-million each way. France continues to restrict exports to nonstrategic goods under present agreements with the West.

Mexican tax collections are up: Mechanizing and streamlining the revenue system has paid off. During the first eight months of 1954, Mexico has taken in \$2-million more than in the same period in 1953.

Austria has followed West Germany's lead in extending credit to Turkey. The Turks will get \$20-million for machinery and equipment purchases, with payment arranged for each purchase over a period of from two to seven years.

International Nickel Co. of Canada Ltd., and its subsidiaries are chalking up record sales. For the first eight months, sales were \$6-million more than in 1953. International predicts a continuing boom for nickel.



San Diego, City-Harbor Panorama

On the scene... the bank that knows California

With resources of over \$8 billion, Bank of America is the world's largest bank. Its shares are held by more than 200,000 stockholders.

★
Bank of America has main offices in the two Reserve cities of California, San Francisco and Los Angeles. Overseas branches: London, Manila, Tokyo, Yokohama, Kobe, Osaka, Bangkok, Guam. Representatives: New York, Mexico City, Milan, New Delhi, Paris and Zurich. Correspondents throughout the world. Bank of America (International), New York, a wholly owned subsidiary; overseas branch, Duesseldorf.

To do business in the giant California market, it helps if you're *on the scene*. And when you deal through Bank of America, you are on the scene—in the more than 330 California communities in which this bank is located.

Today, with 546 branches serving the entire state, Bank of America can offer business and industry throughout the nation *on-the-spot* assistance in locating plant sites...

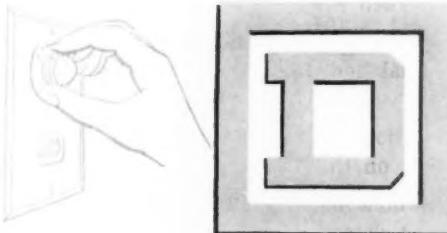
obtaining land costs... estimating labor sources. To out-of-state customers this bank can give local sales and marketing trends... obtain credit information... offer advice based upon intimate knowledge of the market. To inquire about this unique service, write Bank of America, 300 Montgomery St., San Francisco, or 650 South Spring St., Los Angeles. Attention: Corp. and Bank Relations Dept.

...Get to know the bank that knows California

Bank of America
NATIONAL TRUST AND SAVINGS ASSOCIATION

Burroughs Microfilming

Saves record-keeping space, time, and money
for these business leaders



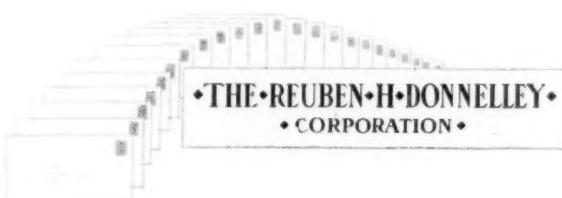
THE SQUARE D COMPANY

Burroughs microfilming equipment is used by the Square D Company in its Milwaukee office to record and preserve such diverse items as invoices, route sheets, earnings records and checks. Simultaneous photographing of both sides of documents on 16 mm. film has proved to be very advantageous in time saved. This outstanding equipment, manufactured by Bell & Howell and serviced by Burroughs Corporation, has given consistently excellent service through the years.



PABST BREWING COMPANY

To keep in step with production expansion and increasing sales volume, Pabst Brewing Company has established a records retention program with the aid of Burroughs Microfilming. Payroll records, accounts payable vouchers, journal entries, and invoices are just a few of the many records being filmed. Records are now easier to locate and microfilming provides greater protection for all documents retained. In addition there are important savings in storage space when records are microfilmed.



THE REUBEN H. DONNELLEY CORPORATION

Accurate control and inspection records are vital to the Donnelley Direct Mail Division, where millions of grocery product coupons are handled each year. Burroughs microfilming greatly simplifies complex mailing specifications by replacing expensive handwritten reports with detailed photo-records. A new industry standard of efficiency and service has been achieved through the speed, accuracy and low cost of space-saving Burroughs microfilming equipment, manufactured by Bell & Howell.



THE HOME INSURANCE COMPANY

The Home Insurance Company has long utilized the Burroughs microfilm system to preserve essential company records. The use of this equipment in reproducing production, loss and claim records has enabled the company to provide its agents and policyholders with more efficient and dependable service. It has also helped to accomplish an important space saving and filing efficiency program at a minimum of expense.



WHEREVER THERE'S BUSINESS THERE'S

Burroughs



The increasing importance of positive, unalterable records for concise reference prompts more and more organizations to adopt Burroughs Microfilming. This process reduces clerical time, minimizes filing space, and assures accuracy. Get the full story from your local Burroughs office, or write Burroughs Corporation, Detroit 32, Michigan.

INT
BUSINES
NOV. 2
A BUSIN
SER

INTERNATIONAL OUTLOOK

BUSINESS WEEK
NOV. 20, 1954



To be sure of staying in office, Premier Mendes-France needs to make a success of his Washington talks this week.

The Mendes-France government is operating today on a tricky parliamentary basis. It depends on holding the support of the Socialists on the left no less than the Gaullists on the right.

If the French Premier can't keep the Socialists happy, he'll find it hard to get his first budget passed. He has to do that before tackling ratification of the Paris agreements setting up WEU—the Western European Union.

Mendes-France will be chiefly concerned with getting two things from Washington:

- A firm promise of continued financial and military aid for Vietnam. He's almost certain to get this.
- U. S. financial backing for his ambitious plans to develop Morocco's industrial raw materials. He can't count on this for now.

This means the French Premier won't have as much leeway as he expected in his budget to meet Socialist demands for (1) lower taxes on consumer goods; and (2) higher minimum wages for industrial workers, including those in government-operated industries.

Mendes-France also would be helped politically by signs that the Eisenhower Administration regards him as the best bet to get ratification of WEU.

This would disarm the bitter opposition of the Popular Republicans—the party that fought so long for the European Defense Community and European integration in general.

The Popular Republicans now have new support in their opposition to Mendes-France. Jean Monnet, father of European integration, has resigned as boss of the Coal and Steel Community to work behind the scenes for his ideas.

Since Monnet has long been a favorite in Washington, Secy. of State John Foster Dulles may hesitate to put all his chips on Mendes-France, at least until Washington sees how well the Premier performs on the international stage.

— • —
Moscow gave its answer this week to plans for West German rearmament. Soviet Foreign Minister Molotov suddenly called an all European conference in Moscow Nov. 29.

Molotov knew that he wouldn't get the Western powers to attend. That's obvious from the short notice he gave.

What Molotov plans is a gathering of Russia's satellites to join Moscow in blasting the West.

Probably the conference will:

- Sign a Communist military pact against a rearmed West Germany.
- Agree on turning the sizable East German police force into a regular army.
- Arrange for military reinforcements along the Czech-German border.
- Warn Britain and France that ratification of WEU will force Moscow to renounce the pacts it made with these two countries during World War II.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

NOV. 20, 1954

The Western powers won't take all this too seriously. They are confident that Moscow is in no position to really challenge Western strength (page 25).

In fact, London, Paris, and Bonn believe that Molotov will use the Nov. 29 conference mainly to clear the decks for a new European policy geared to acceptance of West German rearmament.

It's likely that the West will have a chance to test this new policy by mid-1955. All of the signs point to a new East-West conference by then.

Once WEU is a going concern, the Western powers—including the U.S.—won't hesitate to meet Moscow in a free-wheeling discussion of European security problems.

—•—

The U.S. delegation won't get a very warm welcome in Rio next week at the Economic Conference of the American States.

Almost without exception the 20 Latin American Republics are suffering economic growing pains (page 142). This means an old wound is still sensitive. They still resent huge U.S. grants for Europe while Latin America got little. This wound has been rubbed raw by recent reports from Washington that the Administration is considering an Asian aid program (BW—Nov. 13'54, p155).

However, Treasury Secy. George Humphrey, head of the U.S. delegation, is going to Rio with something to offer—the proposal for a new \$100-million International Finance Corp., which would be set up as a wing of the World Bank.

The IFC is designed to help underdeveloped countries all over the world. But in practice Latin America would probably benefit first.

The IFC would be financed by the U.S. and at least 30 other countries, with Washington putting up \$35-million and London the next biggest share.

Unlike the World Bank, the new agency could make loans without government guarantees. It aims to help medium-sized projects, especially in manufacturing, rather than big, over-all development schemes such as the World Bank finances.

The IFC would be able to invest in new companies by issuing debentures.

These could be turned into voting stock later when they were sold to private investors. As the plan shapes up now, these debentures could be sold for a profit.

One day the IFC might be issuing its own securities. No doubt some of the World Bank's good credit rating will rub off on the IFC.

The problem now is whether Congress will go along with the idea. The last Congress turned down a similar proposal. But that didn't have Administration backing.

—•—

The British steel industry, now operating at full capacity, is bullish about the future. It plans to increase capacity from 19-million long tons (2,200 pounds) to 22-million tons.

The expansion will include additional flat-rolling plant. British steelmen now realize that they had underestimated the demand that would come from two industries—autos and food canning.

Contents copyrighted under the general copyright on the Nov. 20, 1954, issue—Business Week, 220 W. 42nd St., New York, N.Y.



Cuts
Costs
70%

***Man with stapler beats
man with glue 10 to 1***

This actual race took place in a rubber products plant. The man at left sealed cartons with glue. His companion used a Bostitch Autoclench Stapler, and averaged 10 times more cartons per hour. The manager happily reports savings of 70% in time and materials.

The Autoclench is just one of 800 kinds of Bostitch staplers that trim time and costs on thousands of different fastening jobs in factory and office. To help you fit the right stapler to the right job, Bostitch has 350 Economy Men working out of 123 cities in the U. S. and Canada—by far the largest and best trained group of its kind.

Check over your own fastening methods with your nearest Economy Man. There's no obligation. He'll be glad to tell you honestly whether stapling can save you money.

Look up "Bostitch" in your phone directory or write us.

Fasten it better and faster with

BOSTITCH®

STAPLERS AND STAPLES

FREE time and money saving bulletins tell how
stapling can cut your costs.

BOSTITCH, 451 Mechanic St., Westerly, R. I.

I want to fasten:

- cartons plastics wood rubber
 fabric roofing leather light metals

Name _____

Company _____

Address _____

City _____ Zone _____ State _____

HOW HUMIDIFICATION REDUCES COSTS:

- Eliminated dried, cracked leather which had to be thrown away ... Shoe Sole Manufacturer.
- Stopped deterioration of sandpaper which formerly became brittle and cracked ... Abrasives Company
- Avoided production delays caused by dry paper and static electricity ... Printer.
- Prevented fire hazard caused by static electricity ... Explosives Mfr.
- Eliminated glued joint failures ... Furniture Mfr.

Automatic, economical, guaranteed, easily installed Armstrong Humidifiers are the answer.

SEND FOR BULLETINS

ARMSTRONG MACHINE WORKS
942 Maple Street • Three Rivers, Mich.

**ARMSTRONG
STEAM HUMIDIFIERS**

AMERICA'S LARGEST Plastic Supply



We can meet your needs for sheets, rods, and tubes from America's largest stocks on hand for immediate delivery.

Write for FREE BOOKLETS

- "Working with Rigid Vinyl"
- "Sq. Inch to Sq. Foot Plastic Conversion Table"
- "How to use Plexiglas"

Request catalog

cadillac plastic company

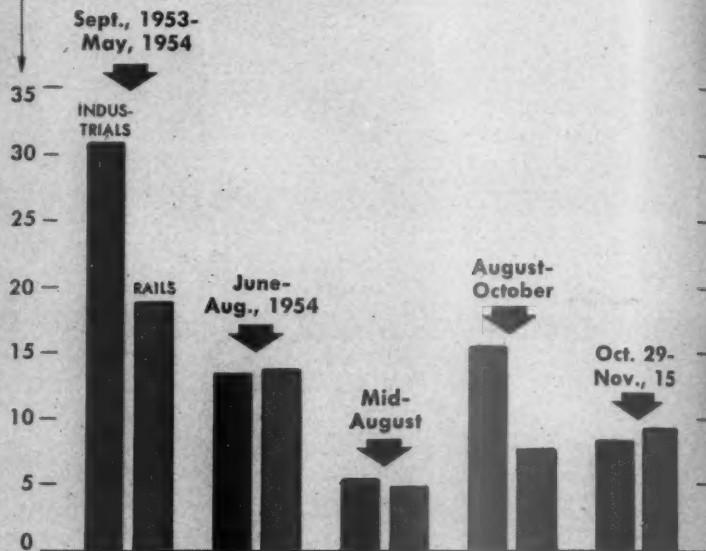
Detroit 3, Michigan
Chicago 6, Illinois
Los Angeles 57, Calif.

Plastic Supply Company, Div. St. Louis 7, Missouri

THE MARKETS

Percent Gains (figured on basis of Sept., 1953 lows)

THE POST ELECTION STOCK BOOM: How It Stacks Up Alongside Earlier 1953-54 Market Rallies



Data: Standard & Poor's Daily Stock Price Indexes.

© BUSINESS WEEK

Rails Join the Party

The post-election boom in the stock market is still going, with its graph of climb very close to the perpendicular. And despite its still brief life, it has already won a place in Wall Street's Hall of Fame.

Veterans of the Street doubt that even in the wildest of the 1928-1929 shenanigans was there an individual advance so sharp, so durable, and so broad as the one that began after Election Day.

• **Take-Off Point**—The vigor shown by the long-laggard rails has been particularly pleasing to analysts. Indeed the rails—because their indexes took off from so low a point—have showed the most striking percentage gains so far (chart above).

But in real bulk it has been the industrials that provided the big punch. In percentages alone, their high starting point has kept them from equaling the performance of the rails. But in points, they have behaved sensationaly, as a group and in many individual cases.

At midweek, Standard & Poor's daily industrial index was up 20 points for

November. That's close to one-third of the gain made by the same index during the entire memorable eight-month rally that started in September, 1953.

• **Big Buying**—There's no telling yet how high the ceiling will finally be. But as of now not even the surviving bears are quarreling with the tape. No semblance of a brake on the rise has appeared yet, though instinct, technical matters, and other factors have all been warning bulls and bears alike that a reaction is overdue.

It's true that a certain amount of speculation has gone on among the lower-priced shares. But the real pillars of the advance remain the out-and-out investors, especially of the institutional type. Much of the gain since the election can be laid to their swift and avid rush to place the must-be-invested funds on which they had been sitting during the pre-election uncertainties.

• **Prospects Rosy**—Sheer momentum could carry the stock list still higher. Nothing makes stock dabblers more bullish than to have handsome paper profits swelling their portfolios; plenty

Best way to handle accounts receivable records

See how Brown & Bigelow,
world-famous producer of
"Remembrance Advertising," saves
\$4,872 per year by putting its debits,
credits and checks on Recordak Microfilm

\$1800 saved in clerical costs.

What used to be a full day's job now takes *less than an hour*. Tedious filing and clerical steps are eliminated by photographing documents in a Recordak Supermatic Microfilmer. More than 500 checks—or 200 letter-size records—can be copied in 1 minute.

\$500 saved in storage cases and warehouse space. Recordak Microfilms made during the last 5 years do not quite fill 2 small cabinets.

\$2000 saved in time lost "digging" for records in vault. Recordak Microfilm copies are at the finger tips... ready for immediate review in a Recordak Film Reader.

\$600 saved in time spent moving material to vault. Before, thirty persons had to take a 5-minute time-out every day to do this job.



Brown & Bigelow uses new Recordak Supermatic Microfilmer which photographs at 40 to 1 reduction —*highest available today* in 16mm. automatic machines



\$1050 saved by eliminating binders formerly used in posting debits and credits.

\$170 saved in office to warehouse transportation costs.

\$560 saved on warehouse searches . . . inventory.

Microfilming costs come to \$1,868 which leaves an annual net saving of \$4,872. And this figure would be much higher, if it were possible to add up the time saved day after day by referring to data on Recordak Microfilm.

Just another example, this, of the way Recordak Microfilming is cutting costs for over 100 different types of business, thousands of concerns. You should double-check your routines with a Recordak Systems man soon. *No obligation whatsoever.* Just write Recordak Corporation (Subsidiary of Eastman Kodak Company), 444 Madison Avenue, New York 22, N. Y.

RECORDAK

(Subsidiary of Eastman Kodak Company)

originator of modern microfilming
—and its application to business routines

GEORGIA



**is the cat's
MEOW...**

FOR NEW INDUSTRY

Unexcelled geographical advantages; the transportation hub of the entire Southeast! By land, sea, air ... raw materials move smoothly to factories; finished goods move rapidly to points all over the world. You'll move it fast, sell it fast, when you make it in Georgia!

Industrial Memo: to all expansion-minded executives



► Labor

Higher living standards boost the Georgia worker to high efficiency.

► Climate

Mild, year 'round weather permits full production every day.

► Electric Power

Unlimited—reaches out to every community.

► Transportation

The vital hub of land, sea and air routes of the entire Southeast.

► Sites

A wide choice to fit every industrial need.

► and More . . .

Abundant, soft waters—rich, natural resources—plus nearby, ever-growing markets for your products . . .

For complete facts and latest figures, Write to: Dept. 7-W.



Nelson M. Shipp, Sec'y.
Ga. Dept. of Commerce
100 State Capitol
Atlanta, Georgia

of these gains are in existence now. Then again, signs of a business upturn are becoming more noticeable. That's not a new factor, but it's a strong one.

Prospects for capital spending also enter the picture. A McGraw-Hill survey (BW-Nov. 6 '54, p30) indicates that spending for plant and equipment in 1955 will be only 5% below the level of this year. Professional investors smile happily at findings like these, with their indication of a leveling-out in the drop that began in 1953. Even the 5% drop, they think, may be more than offset by expanded programs of state and municipal public works.

• Correction—The fact remains that at the very least a normal technical correction is long overdue in the stock market. Since September, 1953, industrial stocks as a group have added 53% to their market value, without any notable readjustment along the way. The clammy hand of a "consolidating period" seems ready to grip the market fairly soon—unless, of course, the bulls

are right when they repeat their 1953 clamor that "this market is a different kind from any that we've seen before."

More and more of the Street's semi-some bulls as well as bears, have taken to warning clients to "exercise care that they are not carried away unduly by the current surge of bullish sentiment. In this hyperthyroid market, they warn, it's all the more essential to keep calm.

On the other hand, the fiscal star-gazers are not flooding their faithful with advice to snatch at all available paper profits.

Standard & Poor's Corp., for one, suggests that "investors sit tight, except for judicious switching operations, and retain any cash reserves for better buying opportunities." Moody's Investors Service echoes that sentiment with the suggestion: "Hold funds largely in stocks but exercise care and discrimination in placing new funds at these levels, which value current and immediate prospective dividends quite generously."

Another New Peak for Nine-Month Dividend

Cash dividends on common stocks, paid by corporations listed on the New York Stock Exchange, zoomed to a record high of \$4.46-billion during the first nine months of 1954. This topped the figure for the like 1953 period by 7%. It was the 12th year in a row that disbursements for the nine-month period racked up a new high.

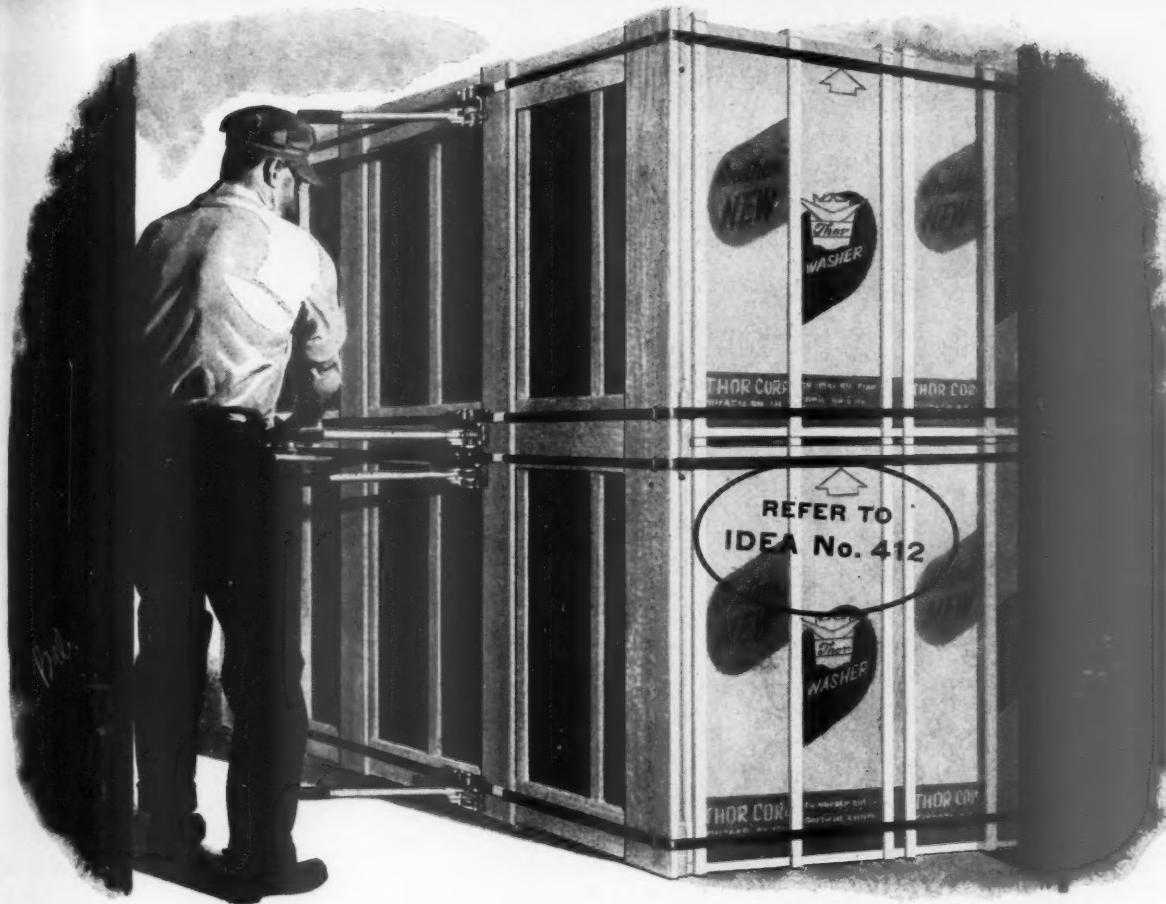
A factor in the 1954 record was the tax angle: Many companies deferred payment of final dividends last year

until the first quarter of this year to permit stockholders to benefit from this year's lower tax rates.

Reflecting this, payments in the first 1954 quarter topped the like 1953 period by 11.2%. For the second 1954 quarter, disbursements exceeded a year ago by 3.2%; in the third quarter, by 6.1%.

More than half the nine months gain of \$291.7-million over a year ago came in the first quarter.

Stock Group	Group	No. of Issues Payers	Higher	Same	Reduced	9 Months' Estimated Dividends (In millions)		% Chang 1954 vs. 1953
						1954	1953	
Aircraft.....	26	21	16	3	2	\$59.5	\$35.1	+69.8%
Amusement.....	24	21	12	9	1	46.2	35.8	+29.0
Automotive.....	68	58	13	31	16	380.0	401.7	-5.4
Building trade.....	31	27	13	12	4	49.8	47.0	+5.8
Chemical.....	86	82	33	45	4	470.9	422.7	+11.4
Electrical equipment.....	24	21	8	13	2	146.3	115.9	+26.3
Farm machinery.....	7	6	1	1	5	35.3	43.4	-18.8
Financial.....	35	32	17	14	2	100.4	94.2	+6.5
Food products, beverages.....	68	61	19	30	14	162.6	159.4	+2.0
Leather, leather products.....	10	8	3	5	..	16.3	15.6	+4.5
Machinery, metals.....	106	94	46	41	12	159.5	142.5	+11.9
Mining.....	40	30	8	14	10	144.2	144.5	-0.2
Office equipment.....	10	10	4	2	4	27.5	26.5	+3.7
Paper, publishing.....	37	33	15	15	3	93.8	77.2	+21.6
Petroleum, natural gas.....	50	48	15	29	4	708.7	682.7	+3.8
Railroad, railroad equipment.....	82	65	21	41	4	238.8	228.3	+4.6
Real estate.....	10	10	6	3	1	13.2	12.2	+8.4
Retail trade.....	70	63	14	39	12	222.6	197.1	+12.9
Rubber.....	9	9	3	4	2	41.2	39.1	+5.4
Shipbuilding, operating.....	10	9	3	4	2	15.0	13.9	+8.3
Steel, iron.....	38	31	11	15	7	199.5	182.8	+9.1
Textiles.....	44	33	7	13	18	46.8	51.3	-8.7
Tobacco.....	15	14	5	7	2	68.6	60.4	+13.6
Utilities.....	109	105	58	47	1	855.5	772.8	+10.7
U. S. companies operating abroad.....	24	16	1	9	7	37.2	44.4	-16.2
Foreign companies.....	18	14	1	11	3	85.4	85.8	-0.4
Other companies.....	24	20	10	8	4	34.1	33.5	+2.0
Totals.....		1,075	941	363	465	146	\$4,458.8	\$4,167.1 + 7.0%



AIM* for Better, Damage-Free Carloading with Acme Steel Strapping Ideas



Help in solving
this shipping problem
came from Acme Idea
Man, Art Hartley,
of Chicago.

ask your
Acme Idea Man
to help solve your
problems

The efficiencies in modern methods of loading freight cars pay off for both the shipper and the consignee . . . in time saved and money saved. Acme Steel Strapping Idea No. 412 is helping prove this for Thor Corporation, Chicago. Washers, dryers and ironers are packed in cars by the "floating load" method. Because the entire load can shift on impact, up to 50% of the shock is dissipated without damaging the lading. By this Acme Steel method, loading time and dunnage costs are reduced. And since cumbersome wood bracing is no longer required, freight costs are lower. Unloading of the safely delivered appliances is under way after a simple snip of the steel strapping. Ask your Acme Idea Man to demonstrate how you can give better protection to your shipments . . . at lower cost. Or, write Acme Steel Products Division, Dept. BC-114, Acme Steel Company, 2840 Archer Avenue, Chicago 8, Illinois. Or, Acme Steel Company of Canada, Ltd., 660 St. Catherine St. W., Montreal, Quebec.

AIM For Safe, Lower-Cost Shipping

ACME STEEL CO.
CHICAGO

**ACME
STEEL**

LABOR



Guaranteed ANNUAL WAGE

MUSTERING SUPPORT for the annual wage in Detroit last week, UAW's John Livingston and Richard T. Gosser, vice-

presidents; Walter Reuther, president; and Emil Mazey, secretary-treasurer, made clear they must be reckoned with as the men . . .

Behind UAW's Goals for 1955

While industry in the past few years has been taking longer and longer strides toward the automatic factory, there has been a strange silence in the headquarters of the big unions on what it means.

Last week, however, that silence was broken officially by one of the biggest of the unions, the United Automobile, Aircraft & Agricultural Implement Workers (CIO), with more than 1-million members in the key metalworking industries of the country.

The occasion was a meeting in Detroit of UAW leaders from all over the U.S. and Canada—the first of its kind ever held by UAW—to put into final shape its bargaining demands for 1955. The major news was supposed to be further details on what UAW means by a "guaranteed annual wage"—which it has promised will be its most insistent demand.

While industry learned little that it had not heard before about GAW, it got this stark warning from the union conference:

"The guaranteed annual wage will serve as a regulator of the process of technological change. . . . Under the guaranteed annual wage, management would avoid the introduction of automation in times when major layoffs would result. The introduction of new and more efficient equipment would be geared to periods of expanding markets so that other jobs would be avail-

able for the workers displaced by automation."

I. Automation's Threat

If the meaning of those words in UAW's first official policy document on automation wasn't clear enough, Pres. Walter P. Reuther spelled it out carefully in a news conference following the meeting.

There are two ways automation's threat to full employment can be met, he said. One is by government action, and that way lies dictatorship. The other way is by "voluntary agreement between economic units"—meaning unions and management. "We don't want to smash the automation machinery," he said. But UAW intends to see that it works for the benefit of both labor and management.

• **New Revolution**—Automation will bring a new industrial revolution, Reuther said. And big changes will come so fast, he says, that "we would not go for another five-year contract even if we got a guaranteed annual wage." This dispels indications reported earlier that a deal for a shorter contract would be used as a lever to get GAW (BW-Oct. 30 '54, p106).

Accordingly, UAW will ask for contracts not to exceed two years if they include escalator and improvement factor provisions, and only a one-year contract if cost-of-living adjustment and

improvement-factor raise clauses are not included in 1955.

Explaining this attitude, Reuther said that the five-year contracts under which the union presently deals with management were clearly tied in with the pension plans, the annual improvement factor, and cost-of-living wage escalation. The time was needed, for example, to get sufficient experience in pension plans.

"All that now is behind us," Reuther told the UAW wage-policy conference. "We are at a different place in history. The factors have changed since 1950. Now automation dictates no more than a two-year agreement."

• **Worries**—UAW has had a study committee working on automation for a couple of years, and the results showed in both the policy statement and in Reuther's remarks.

Reports from the Massachusetts Institute of Technology, Reuther declared, show that it is now technically feasible to produce a complete automobile without any manual labor.

Moreover, according to the auto union, an economist says that within a decade one man will do the work of at least five men. "These predictions, if accurate," the UAW statement says, "would mean, for example, that 200,000 men could match the present output of the million UAW members in the automobile industry." And Reuther reported that a foundry that formerly

NO
EVER
TAKE

FAT
• It
of a
and lo

Cres
yet n
and d

See Amer
ately carpe
A joy to ride
a pleasure

For further
ANDREW
Represents
New York,

NOW
EVERY FABRIC YOU CAN NAME
TAKES ON UNHEARD-OF TALENTS!

FABRICushon*

PROCESS PATENTED

FABRIC-TO-FOAM WEDDED FOREVER

- It adds the magic of built-in foam rubber to fabrics of any fibre in any construction!

and look what happens!



Crest FABRICushoned card table cover lies flat, can't slip—yet needs no straps or binding! Cards are a cinch to pick up—and the beautiful surface wears far longer.



See America's finest cars exquisitely carpeted in FABRICushon. A joy to ride in, a thrill to step into, a pleasure to show your friends!



Don't worry! FABRICushon upholstery takes the punishment! It stays beautiful longer, outlives ordinary fabric as much as 8 to 1!



New shoes by Selby are now FABRICushoned for this season's stylish embossed look—and for snug, cooler-breathing comfort!



J. Gordon Lippincott, leading industrial designer, says: "From the functional point of view, this material's performance is exciting. We can create striking new concepts, and expect them to take wear for many years to come!"

Now your products can acquire new sales appeal. You can endow them with fabrics of thrilling new beauty and texture...fabrics that refuse to wrinkle, hold their shape...can be water-resistant yet breathe!

Entirely new fabrics, each with a new cushioning quality!

This wonderworker that can turn your designers' dreams into realities is FABRICushon — your choice in fabrics wedded forever to foam by the patented ANDAL® process. And FABRICushon can be worked as easily as ordinary fabric. Write for details how to use it in your business.

LOOK FOR THIS MARK ...

For further information write
ANDREWS-ALDERFER CO., 1055 HOME AVE., AKRON, OHIO.
Representatives in Boston, Chicago, Detroit, Los Angeles,
New York, St. Louis, London, Mexico City, Toronto

FABRICushon*
PROCESS PATENTED
fabric-to-foam wedded forever

*Trade Mark, A. A. Co.

employed 23,000 now has an employment of 11,000 because of automation.

• **UAW Proposals**—Just what does UAW propose to do about automation? It has several demands:

- Higher pay for automated jobs. "Management must be brought around to the acceptance of the principle that automated and semi-automated jobs require new classifications and rates—whether in new plants or old. And don't let management try to argue that the annual improvement factor raise (now 5¢) takes care of that," UAW warns its bargainers. "This is a fallacious argument. The improvement-factor, payable to all workers, is not just compensation for a man who has a more responsible job because of automation."

- More flexible seniority and transfer provisions. "Our contracts must permit transfers for all workers directly or indirectly affected" by automation. UAW is asking that multiplant corporations, when hiring in any plant, give preference to workers laid off from their other plants. Though this is not required by present contracts, it is generally a practice at, for example, Ford. Now UAW proposes to make it binding by demanding provisions to require all plants under UAW-CIO contract, when hiring, to give preference to laid-off workers.

- Provision for companies to pay the expense for retraining workers whose jobs have been wiped out.

- A shorter work week—eventually. The 1,100 UAW delegates last week agreed, with only three dissenting, that the basic goal next year will be the guaranteed annual wage. But "after that is won, the shorter work week will take its place at the top of our collective bargaining agenda."

- Revamped legislation to raise the minimum wage; "drastic improvement" in unemployment compensation to cushion the shock of technological change for workers not covered by GAW; an amended social security law to enable technologically displaced persons to retire younger; relocation allowances provided by law to permit workers to move to areas containing more efficient plants.

- A voice for the union in determining plant location. And this brings automation right back to the guaranteed annual wage. GAW, implies the union, would make it too expensive for a manufacturer to lay off workers en masse at one location in order to open an automated plant at a different location.

II. Annual Wage Strategy

In his news conference, Reuther frankly confirmed that GAW was a penalty demand. "We really don't want

to be paid for not working," he said, "but we want to make it costly for a company to have unemployment. A worker not working is not contributing to the economic welfare of the nation."

From the careful and elaborate preparation of UAW's brief on automation and the extent of Reuther's comments on the subject, it is apparent that automation—not the seasonal aspect of the automobile business—is the new ammunition UAW will fire to support the guaranteed annual wage. Reuther, however, would not agree with that analysis. He insists that automation has been a factor ever since the annual wage came up a number of years ago.

Nevertheless, observers who have been watching the development of GAW's arguments through the years attached significance to the fact that a year ago UAW's "horrid example" for the necessity for GAW was the mass layoffs at Chrysler, Hudson, Studebaker and other auto companies. Last week, automation was the talking point. Mass layoffs due to seasonal conditions were hardly mentioned.

With the leveling-off of the national economy, Detroit auto makers expect that next year employment will be far more stable than in the past 12 months. So it could be that UAW feels the necessity for a stronger peg for its GAW plan. Reuther, however, did cite a report from the Michigan employment security commission that in the 12 months ended last July, Michigan workers lost \$650-million in wages—most of which they would not have lost, he said, if an annual-wage plan had been in effect.

• **How it Would Work**—While using automation as the case for GAW, the UAW in its public statements concerning the conference did not elaborate on the previously published information regarding its annual wage plan—now, however, called a "guaranteed employment plan." Its elements are unchanged:

All UAW auto-plant workers would be guaranteed 40 straight-time hours of work or pay for every week, unless notified in advance that they will be laid off for the full week; additional protection would be offered to seniority workers—payments for each full week of layoff up to 52 weeks "in amounts sufficient to enable them to maintain the same living standards as when fully employed."

It is this "same living standards" wording that contains the key to what GAW would cost—and it is that wording UAW is not yet ready to explain, other than that GAW payments would supplement unemployment compensation.

This dovetailing of state idle-pay and GAW is why Reuther says, "there is no reason it should cost employers one red

cent if they schedule production properly."

III. Rest of the Package

Reuther declined to put an overall package cost on UAW's demands for 1955. In addition to GAW, the conference endorsed these demands:

- An increase to bring wages up to "the level they would have attained on the basis of proper implementation of the theory behind the wage formula starting in 1948." What this means is that UAW's research director N. Weinberg (page 170) and his staff have come up with an involved mathematical formula to back up the principle of escalation and the improvement factor originated by General Motors. Under the formula, UAW figures it has been "short-changed" 5.3¢ since 1948. It says it should have got increases aggregating 51.3¢, but actually got only 4¢. So it wants 5.3¢ as a raise in 1955.

- A further 5¢ improvement factor increase is due next year, and the union wants that tacked on. So the increase in wages would be at least 10.3¢. This, of course, does not include enlarging the base rate by the 7¢ of-the "bonus" workers have received since the last adjustment in May, 1953. The union also wants the improvement and escalation factors changed and a floor under escalation so there would be no downward re-adjustment.

- Increased pensions amounting to \$2.50 a month for each year of service instead of the present \$1.75 a month. "An elderly couple today should have over \$230 a month in assured retirement income," UAW says. In addition, the union wants more pooled pension plans such as those in Toledo and Detroit tool-and-die shops and a union voice in investment of pension funds.

- Noncontributory health security protection under which the employee would pay the full cost of hospital care for every union member and his family, and full cost of surgical care.

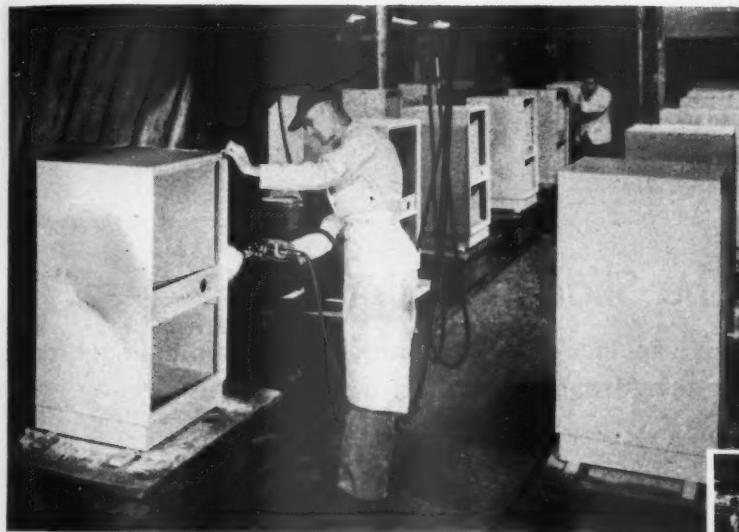
- First Target—Close-mouthed delegates to the conference would say no more than that it was successful and that they thought the bargaining packet was fine. Neither Reuther nor delegate would indicate which of the automotive Big Three would be first presented with the demands. The General Motors contract expires May 31 next year, that of Ford on June 1.

Sixty days in advance of expiration the union expects to begin bargaining so UAW has its choice of targets for its GAW plan. Chrysler is a less likely possibility, as its contract does not expire until Aug. 31. However, no one around Detroit who knows how officials dislike Chrysler would write off the possibility that the union would find some way to hit Chrysler first.

The secret of those magnificent Magnavox finishes



DeVilbiss spray gun gives operator a wide pattern at normal pressures. Fewer passes mean less painter fatigue.



Magnavox uses DeVilbiss guns to spray stain, sealer and finish coats, insuring those traditionally fine Magnavox finishes.



The efficient exhaust of this DeVilbiss water-wash booth makes it ideal for high-speed spraying of Magnavox components.

The Magnavox Company, Fort Wayne, Indiana, turns out cabinets famous for eye appeal. Painstaking care — some cabinets receive seven finishing coats — and DeVilbiss spray equipment maintain top quality for Magnavox.

Magnavox uses a variety of DeVilbiss spray guns, booths, hose, connections and other accessories. Guns, for example, spray stain, sealer and finish coats. Their ball-and-cone principle of fluid tip and air cap centering assures a perfect spray pattern of uniform quality and fine atomization. Lightweight and finely balanced, they adjust exactly to the pattern desired.

The result is smooth finishes with greater depth, more uniformity. Painters are able to get uniform coverage because of the wide, even spray pattern. Result — fewer passes, less painter fatigue.

You can get complete data on DeVilbiss spray guns and other DeVilbiss equipment for high-quality finishes from your DeVilbiss jobber or our nearest branch office. Call today, or write direct to the factory.

THE DEVILBISS COMPANY, Toledo, Ohio

Barrie, Ontario • London, England • Santa Clara, Calif.

Branch Offices and Distributors in Principal Cities Throughout the United States, Canada and the World

FOR BETTER SERVICE, BUY

DEVILBISS



INDUSTRY IS LEARNING FAST



The New and Profitable Way to put Equipment and Machinery into your plant—is by Lease

United States Leasing Corporation in the past 90 days has increased its business by \$2,500,000... a strong indication that more and more industries, both national and local, are learning of the advantages of U.S.L's Lease Plans.

The Only Nationally Recognized Complete Leasing Service



This is the Service We Offer

United States Leasing Corporation will buy the machinery or equipment you select, from the manufacturer or dealer of your choice, at the price you have agreed upon... and place it in your plant on flexible lease terms based on your specific requirements.

The Advantages To You

U.S. L's Machinery and Equipment Lease Plans include these advantages:

- Frees working capital for more profitable employment.
- Improved balance sheet position.
- Charging of rental payments to expense as a tax-deductible item.
- Modernization or replacement of obsolete equipment on a pay-as-you-go basis.
- Expansion of plant capacity without changing capital structure.
- Pinpoints equipment costs to specific contracts.

Find Out What We Can Do For You

For full information about the advantages of U.S. L's Lease Plans and how they may apply to your business—write, wire or phone:

UNITED STATES LEASING CORPORATION
465 CALIFORNIA STREET
SAN FRANCISCO 4, CALIF. • DOuglas 2-3625



NAT WEINBERG, the auto workers' deep-delving director of research, has been called...

"The Slide-Rule Unionist"

Reuther's statistical backstop leads in the fight for the guaranteed annual wage in the auto industry.

Last week an inch-thick stack of printed documents, loaded with mathematics, statistics, and carefully reasoned arguments, was tossed at some 1,100 delegates of the United Auto Workers (CIO). The object: to convince the delegates from the U.S. and Canada that the union's 1955 bargaining aims were logical and obtainable.

Whether or not the documents put over that conviction, it was dead sure that they would convince everyone that UAW has an effective, hard-working research department.

The man who runs that department is Nat Weinberg, who next to Pres. Walter Reuther himself has been the most vehement apostle of the guaranteed annual wage. The Director of Research & Engineering has been called a "slide-rule unionist"—a term he disavows in public but is believed to enjoy in private. From at least one standpoint the term is apt: There are few facts of industrial life that Weinberg doesn't know and won't use in any argument over labor's share of industry's fruits.

• **Testy**—The staggering amount of facts and figures stored away in Weinberg's brain is both his chief asset and chief liability. He's right at home with industry economists, and usually gets

along well with them—even when they won't accept his reasoning. But with people less familiar with the trade jargon of economics, he's likely to become impatient. This leads him into caustic criticism rather than explanation.

Several labor relations men for the auto industry who have dealt with Weinberg agree on his main characteristics. He is, they say, "a very intense, tireless worker who prepares thoroughly to meet any argument." One of them, who likes Weinberg personally, calls him "dedicated and enthusiastic" but strong-willed.

All these people agree that Weinberg and his research department have brought the economic aspects of bargaining to a new high. But they also agree that, although the statistics and interpretation come from Weinberg, the basic ideas come from Reuther. Weinberg himself would insist that this is true.

• **In a Corner**—In the fight for the guaranteed annual wage, Weinberg has been in the vanguard many times; he has probably made even more speeches on the subject than Reuther. But he still likes to keep in the background when Reuther is involved. When Reuther holds a conference, Weinberg will be

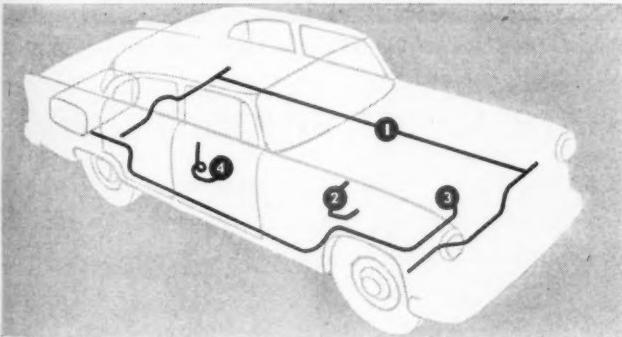
1 Bu
car
are
ne

2 Le
ke
you
co

B U



Has he growled his last growl, or will your brakes work?



1 Bundyweld lifelines in your car's hydraulic brake system are *15 times stronger than necessary to save your life.*

2 Leakproof Bundyweld helps keep oil where it belongs in your car — with no delays, costly repairs, ruined engine.

3 Gasoline lines of Bundyweld won't fail you, despite constant beating from flying rocks, punishing vibration.

4 To help keep push-button windows foolproof, manufacturers depend on Bundyweld to conduct the hydraulic fluid.

Chances are good you'll stop in time — in *any* emergency. One good reason: the designers and builders of today's high-speed cars insist on leakproof Bundyweld Tubing for hydraulic brake lines. Bundyweld is remarkably resistant to vibration fatigue, won't burst from high braking pressures. In fact, Bundyweld is so dependable *it's used in 95% of today's cars in an average of 20 applications each.*



Made by the world's largest producer of small-diameter tubing, Bundyweld Steel Tubing is the only tubing double-walled from a single metal strip, copper-bonded through 360° of wall contact.

BUNDYWELD TUBING®

"The lifelines of your car"

BUNDY TUBING COMPANY • DETROIT 14, MICHIGAN



A market is one thing—a PROFITABLE market is something else. So, if it's people with money you're after—locate a plant in the West. In California, for example, per capita buying income is 20.6%* above the U.S. average. To reach this market at minimum cost, locate at the population and distribution CENTER of the West—Santa Clara County, California. This puts a sudden end to soaring freight costs and gives you a productive year 'round mild climate.

*Source: Sales Management.

WRITE TODAY for the free booklet, "32 Billion Dollar Market." See why Santa Clara County plant brings you closer to greater profits.

SAN JOSE CHAMBER OF COMMERCE
Dept. B-3, San Jose 14, California

Santa Clara County
California

Decentralized, YES! Isolated, NO!

THERE'S NO OTHER INTERCOM LIKE IT!



DIRECT-A-CALL

For small offices or direct "keyman" hook-ups in large firms . . . Every phone is a master station—you can call every other station with direct-signalling pushbuttons . . . Quiet, efficient intercom—no noisy "broadcasting" . . . No batteries or tubes . . . Install it easily yourself with a screwdriver . . . Handsome, compact phones of unbreakable grey plastic . . . Mount on top or side of desk . . . Power supply plugs into 110 volt outlet.

Complete 5-station system \$179.50
(Smaller systems lower priced)

Call your local dealer or write us direct:

Connecticut
TELEPHONE & ELECTRIC CORP.
157 Britannia St., Meriden, Conn.

Send information about Direct-a-Call to:

Name _____

Firm _____

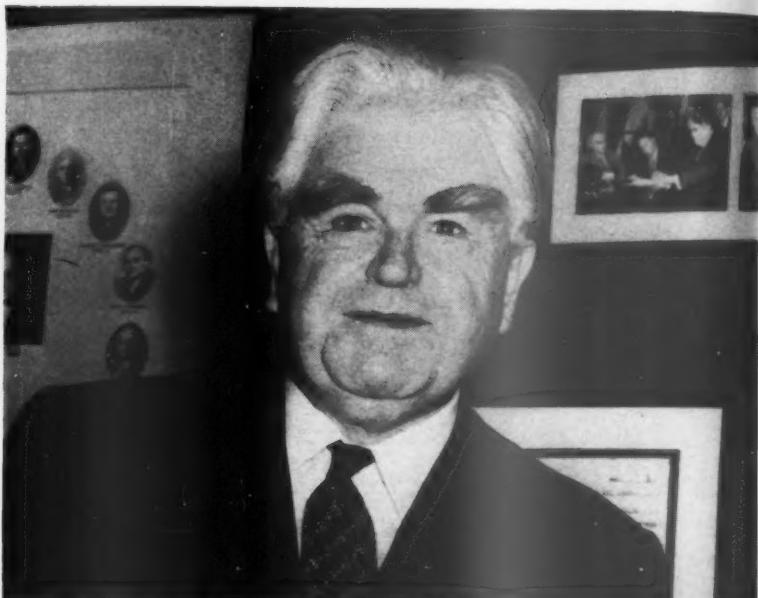
Address _____

the small, dark man sitting off in a corner. He listens intently, occasionally smiles fleetingly, and speaks only when the boss fumbles for a figure. When that happens, the facts pop out of Weinberg without any preliminary shuffling of papers.

Weinberg, who is now in his late 30s, has been preparing for his role for many years. He was born in New York City and went to high school at night while working by day as a Wall Street runner. He also went to college at night, attending City College of New York and St. John's, finally taking a bachelor's degree in economics at New

York University in 1942. At the same time, he had served as assistant to the research director of the International Ladies' Garment Workers' Union (AFL). During World War II he worked for the War Production Board and the Bureau of Labor Statistics.

• **Premises**—Industry men who have sat across from him at the bargaining table have worked out one technique. Don't argue with him, they warn, but if you must argue, pitch the argument on his premise, not his figures. Frequently, they say, he will begin a statement of position with a premise—presented as a fact.



UMW CHIEF John L. Lewis bides his time as his union and the industry continue in a ...

Stalemate Over Miners' Pay

Low production of coal is the big argument against new wage demands. On the other hand, mine owners' attempt to cut the payroll would undoubtedly bring on a strike.

The first nip of cold weather has a way of stirring up the men who run—and the men who work—the nation's coal mines.

Last week, this seasonal pattern ran true to form when soft coal operators began talking tough to John L. Lewis. They warned the United Mine Workers' president that the time was coming to talk about cutting the wages of his union members.

The threat grew out of a regularly scheduled conference of the Southern Coal Producers' Assn.—a bargaining alliance of mine owners whose companies produce about one-fifth (75-million tons) of the nation's annual bituminous coal output. The members handed

association Pres. Joseph E. Moody authority to cancel contracts with the UMW whenever he sees fit.

• **Official**—This isn't the first time Southern coal mine owners have talked of cutting payroll costs; it has been a favorite topic of a large segment of the Moody group since the industry went into a production and sales decline several years ago—to a point where coal is now battling for its market existence. But last week mine owners took the big step to make it official policy.

It's significant that Moody didn't pick up the cue right away. He says he has no immediate plans to talk to Lewis about a contract reopening, and the subject is probably far from his mind.

the same
to the
ational
Union
II he
Board
ics.
ave sat
g table
Don't
if you
on his
tently,
ent of
ted as



This Thanksgiving you'll eat heartier

The same salt that seasons your holiday bird is also the source for a whole host of chemical products used to give you better, heartier, more wholesome food . . . and for chemicals for industry, too.



DINNER NAPERY is whiter, thanks to modern laundry practices. Bleaches, detergents, and better soaps are made possible by the use of a number of Hooker chemicals, such as caustic soda and chlorine.



DESSERT will taste better—be better. The cranberries, and almost all fruits, are better because of insecticides derived from salt. Even the flavor and taste of ice cream is improved by ingredients made possible through Hooker chemicals.

YOUR THANKSGIVING BIRD will be heftier—and healthier. It is more than likely that his feed will have been treated with a new drug made from Hooker chemicals (monochloroacetic acid and caustic soda) to bring him to your table in peak form.



WHEN YOU SEE the orange tank cars roll by, think of Hooker's 50 years of chemical pioneering that has helped make it possible to unlock the tremendous usefulness in common salt. If you'd like some ideas on how chemicals from salt may be useful to you, send for the free booklet, "From the Salt of the Earth." Write us at 21 Forty-seventh St., Niagara Falls, N. Y.

4-1933
HOOKER
CHEMICALS

From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY

NIAGARA FALLS • TACOMA • MONTAGUE, MICH. • NEW YORK • CHICAGO • LOS ANGELES



IF YOU'VE GOT TO—LET'S MAKE IT EASY That's Republic's Idea Behind Minit-On Tire Chains

So far as we can find out, the Minit-On* tire chains are the most easily installed chains there are. Drivers actually install them in a minute. One side of the chain is a wire rope. This provides just enough stiffness so that the chain can be more easily handled than any other tire chain. You need no tools. No crawling under, jacking up or moving the car.

A special touch of human kindness is the pair of plastic sleeve guards included in each package.

Minit-On Chains are typical of many consumer products manufactured by Republic Steel—an essentially humdrum item made ingenious by a dash of imagination. Minit-Ons are one of a range of welded and weldless chain made by Republic's Round Chain Division, for every requirement of home, farm and industry.

The practical knowledge that comes from fabricating and selling steels underlies . . .

REPUBLIC'S 3-STEP SERVICE TO STEEL USERS:

- 1 Making the finest steels possible, in the world's widest range;
- 2 Recommending to you the most exact specification to suit your needs (because we have this wide range);
- 3 Following up with metallurgical field service to insure your greatest benefit from the use of Republic steels.

REPUBLIC STEEL

GENERAL OFFICES • CLEVELAND 1, OHIO

*Registered trade mark.

The
by th
and
Do y

STEEL wi
one of Re
Republic o
in the worl

STAINLES
trim on au
resists wea
road chemi
the car. Re
facturer of

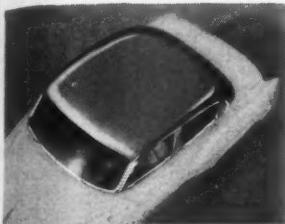
SILICON
and field c
cause it as
of electric
nishes silic
electrical a

WOR
OF ST

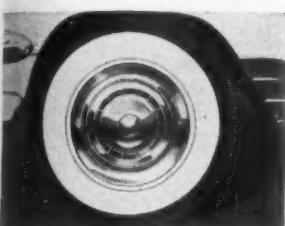
BUSINESS

**The REPUBLIC name
is now borne
by thousands of steels
and steel products.**

Do you know these?



STEEL wide enough for an auto top is one of Republic's basic products. Republic operates the widest strip mill in the world—98 inches.



STAINLESS steel is preferred for the trim on autos because its bright luster resists weather and corrosion from road chemicals. It will actually outlast the car. Republic is the largest manufacturer of stainless and alloy steels.



SILICON steel is used in armatures and field coils of starting motors because it assures the finest performance of electrical systems. Republic furnishes silicon steels in many grades for electrical applications.



**WORLD'S WIDEST RANGE
OF STANDARD STEELS AND
STEEL PRODUCTS**

at the moment. He knows that to broach the issue would stir up a hornet's nest in the industry—and to carry it through would result in a sure strike.

- **Lewis Silent**—Lewis had nothing to say about the operators' action. In fact, he didn't even rise to the bait when the conference issued an official statement condemning the "insatiable and unreasoning ambition and arrogance of the leadership of the United Mine Workers of America."

For more than two years now, the 74-year-old mine leader has kept silent on the subject of wages. At any point, he could have demanded a new contract on 60 days' notice, but he, too, knows that any new demands would be resisted—even as he himself would fight a reduction.

- **Impasse**—The stalemate over miners' pay is a reflection of a stalemated industry. Soft coal production this year may fall below 400-million tons to the lowest point in a decade; miners are averaging a three-day work week. Competition from other fuels, high transportation costs, and a cutback in exports have combined to force the industry to its knees.

That's why Lewis hasn't moved on the wage front. But it's also the reason why Southern operators want to take steps to amend their contracts with his organization, but are hesitant to do so.

So, instead of talking wages, mine operators and the UMW are campaigning jointly to boost the fortunes of their industry. The primary attack is on the federal government, which has already set up a series of top-level committees to investigate the coal industry's plight—committees that reach up to the Eisenhower Cabinet level.

- **Common Goals**—There are two union-industry goals.

The first is a short-range program to step up coal exports (BW-Nov. 6'54, p100) and an attempt to get Congressional approval of an embargo on foreign residual oil imports that displace coal in industry.

The second evolves around a national fuels policy that would give coal a larger share of the fuels market—now lost to oil and gas—and keep production at a high national defense level.

But, while making a joint drive against external factors, the Moody team wants to cut down its own internal problems via a cut in labor costs. The theory is that a reduction in the average \$18.35 a day in miners' wages will help to make coal a low-priced and competitive fuel once again.

Lewis, who brought miners wages to the highest point among the nation's production workers, thinks this is nonsensical. He says that to cut wages by \$3 a day per miner would mean only a 25¢-a-ton reduction in the cost of coal.

- **Pressures**—Another hard economic fact faces Moody's group. Other producers, principally the Bituminous Coal Operators Assn., aren't considering a payout now. If the Southern operators are shut down over such a demand, the Northern bituminous mines would pick up the production slack.

But if Moody doesn't move in the near future, what about Lewis? Lewis faces pressures of his own making that have kept the miners out in front of the wage parade.

Next year may provide the test. Beginning in March, Lewis' rival, Walter Reuther, will begin bargaining on a new contract with the auto industry, leading with a demand for a guaranteed annual wage for the United Auto Workers (CIO). Whether Reuther gets an annual wage or not, he'll most likely come up with a wage hike to the envy of the miners.

- **Facing Facts**—So far, new contracts in other industries haven't hurt the UMW president's pride to any appreciable extent. Reuther has been collecting only a 5¢ advance in recent years, and although the CIO steelworkers came up with good-sized hikes this year and last, that union doesn't evoke the venom Lewis harbors for the auto union leader.

Just wanting a better wage for his miners won't do the trick. Lewis knows that a new contract depends on the economic facts of life. In 1955, he may get what he needs.

- **Bargaining Lever**—With the fall weather, the coal industry has picked up in production to a point where the UMW is betting on a 400-million ton-year. (Moody's group estimates 377-million tons.) But there are these other factors that point to revival of the industry:

- The steel industry, a good coal customer, has boosted production close to 80% of capacity. Auto production has risen sharply with the new models.

- Electric utilities, using coal more than any other fuel, have set new records in 1954. Their coal consumption is also at a peak.

- The Foreign Operations Administration has pledged to ship 10-million tons abroad, and Britain has announced it will step up import of American coal in the coming months.

With these factors, and the Administration working on new ways to resuscitate the coal industry, production at the pits may show a sharp upturn in the months and years ahead. This is what Lewis needs as a bargaining lever for a new wage contract for the United Mine Workers. It's a good bet, at the moment, that he'll make the first move to reopen contracts with the coal industry for a higher miner wage—rather than the operators formally demanding a wage reduction.

LABOR BRIEFS

JOB PROVED

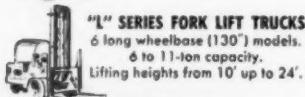
GERLINGER

MAKES SHORT WORK
OF L-O-N-G-E-S-T
BEAMS EVER LAMINATED

Fleet of 8 Performs "MIRACLES" in Versatile Operations for Timber Structures, Inc., Portland, Oregon

Get on the "Beam"

...get the Gerlinger answer to the particular material handling problem facing your industry. Call your Gerlinger distributor now...he will be glad to prove that Gerlinger can save time, money and man-hours for you, too. No obligation, of course.



G-390



Timber Structures benefits day-in, day-out, by Gerlinger cost-cut handling. Longer wheelbase and larger tires on fork lift truck insure positive maneuverability at all times regardless of adverse weather conditions or load differences.

GERLINGER CARRIER COMPANY

DEPT. K-2 • DALLAS, OREGON

Please send further information and free Gerlinger brochure.

NAME _____
FIRM _____
STREET _____ ZONE _____ STATE _____
CITY _____



Timber Structures management and operators alike praise the Gerlinger. The plant keeps 3 fork lift trucks and 3 material carriers busy inside and out every shift. Individually, or as a team, Gerlinger heavy-duty material handlers lead the field.

Uranium workers in plants at Oak Ridge, Tenn., and Paducah, Ky., last week accepted a 6¢ pay hike retroactive to Apr. 15. This ended a seven-month contract dispute that resulted in a short strike in July and the issuance of a Taft-Hartley strike injunction in August. These employees of Carbide & Carbon Chemicals Co., covered by the Gas, Coke & Chemical Workers (CIO), will get another 4¢-an-hour raise on Jan. 15.

A strike ended at Standard Railway Equipment Mfg. Co.'s Hammond (Ind.) plant last week after 81 days. The 350 members of the United Steelworkers (CIO) accepted a 15½¢-an-hour raise, but gave up a twice-a-year bonus (in effect 16 years) amounting to 10% of an employee's total wages. The company's desire to end the bonus arrangement was the principal issue in the contract fight.

Arbitration of a demand by the Order of Railway Conductors for rates of pay based on the driving-wheel weight of locomotives hauling trains—the basis on which engineers are paid—was rejected by both ORC and the carriers. The railroads said any demand for higher pay is "unjustified." ORC will now set a strike date, and Pres. Eisenhower will probably refer the case to fact-finders.

Pay hikes during the third quarter fell largely (52%) into a 4¢ to 6¢ bracket according to a study of 1,102 settlements by the Bureau of National Affairs, Inc. The increase given most frequently was 5¢—the auto improvement factor raise and the negotiated figure in steel. The median increase for the quarter was 6.2¢.

The Pictures—Black Star—142 (top); Cal-Pictures—32; Joe Clark—114 (top, bot.), 115 (top); Henry G. Compton—28, 29, 31; George Harris—82 (lt.); IBM—70 (top lt.); Ideal Toy Corp.—70 (bot. 45); Int'l. General Electric—142 (bot.), 143 (bot.); Int'l. News Photos—48, 64, 84, 172; Herb Kratovil—74, 82 (top rt., bot. rt.); 83, 101, 102, 190, 192; Monkmeier Press—143 (top); Norton Co.—70 (top rt.); Port of N. Y. Authority—66; Rule-O-Matic Corp.—70 (bot. rt.); Fred Swartz—92; Triangle Photo—143 (ctr.); United Oeaducyters—166; Wide World—27; Hamilton Wright—142 (ctr.); Ida Wyman—170; John Zimmerman—115 (bot.).

Meet your HOMETOWN Insurance Agent



He showed me HOW TO DO IT...SAFELY!

Do you have a hobby—or are you "handy around the house"? Then you'll find an *extra* advantage in talking to your Home Insurance man. His interests are probably very much like your own and he may be able to give you some good suggestions. He *certainly* will be able to give you sound advice on practical safety measures. He has built a career on the services of protection and his expert opinion, backed by more than a century of Home experience, is well worth having. For your sake, see him soon!

★ Your HOMETOWN Agent can serve you well—see him now!



Free—
"Tips to the Handyman-Hobbyist on
HOW TO DO IT SAFELY." There's a right
and a wrong way to do almost everything. This handy
new 48-page booklet shows the *right* way, the *safe*
way to work on your home or hobby. For your copy,
see your local Home agent or broker, or write The
Home Insurance Company, Dept. C.

★ THE HOME ★
Insurance Company

Home Office: 59 Maiden Lane, New York 8, N.Y.

FIRE • AUTOMOBILE • MARINE

The Home Indemnity Company, an affiliate, writes
Casualty Insurance, Fidelity and Surety Bonds



The Home, through its agents and brokers, is America's leading insurance protector of American homes and the homes of American industry.



A PLANT THAT EATS OYSTER SHELLS

...over a million tons of 'em!

Lime is a basic raw material in the production of alkalis. Most alkali plants use limestone—but at Corpus Christi, Columbia-Southern derives much of its lime from oyster shells, which are found in abundance on the floor of nearby Nueces Bay. Over the years, the hungry kilns have consumed over a million tons of these shells!

This is only one of numerous unique features of this pioneer alkali operation of the Southwest. Its first unit was built in 1933, providing supplies of soda ash and caustic soda so vital to the gigantic industrial expansion which followed. Production of chlorine was begun in 1938 and subsequent plant expansion has made it one of the nation's most modern and important alkali producers.

To the East, just across the Texas line at Lake Charles, Louisiana, another large Columbia-Southern plant provides additional tonnages of chlorine and caustic soda for the new industrial South. Plants in Barberton, Ohio, Natrium, West Virginia, and Bartlett, California, round out nation-wide service to industry—important reasons for entrusting your company's alkali requirements to Columbia-Southern.

COLUMBIA-SOUTHERN CHEMICAL CORPORATION

SUBSIDIARY OF PITTSBURGH PLATE GLASS COMPANY
ONE GATEWAY CENTER • PITTSBURGH 22 • PENNSYLVANIA

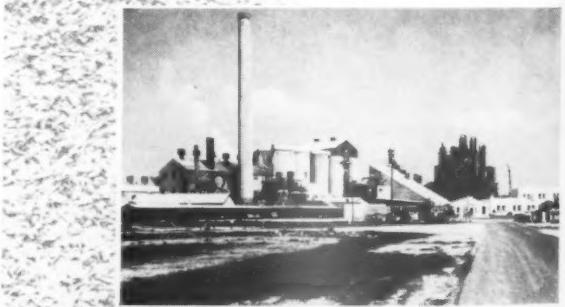


EXECUTIVE OFFICES: ONE GATEWAY CENTER, PITTSBURGH 22, PA.
DISTRICT OFFICES: BOSTON, CHARLOTTE, CHICAGO, CINCINNATI, CLEVELAND,
DALLAS, HOUSTON, MINNEAPOLIS, NEW ORLEANS, NEW YORK, PHILADELPHIA,
PITTSBURGH, ST. LOUIS, SAN FRANCISCO.

SODA ASH • CAUSTIC SODA • LIQUID CHLORINE • SODIUM BICARBONATE •
CALCIUM CHLORIDE • MODIFIED SODAS • CAUSTIC POTASH • CHLORINATED
BENZENES • MURIATIC ACID • PERCHLORETHYLENE • HI-SIL • SILENE EF •
CALCENE TM • CALCENE NC • PITTCHEM (Calcium Hypochlorite)



BARGES like these are anchored out in the Nueces Bay, off Corpus Christi, Texas. Dredges scrape the floor of the bay and load the large barges with oyster shells. Then at the docks the oyster shells are unloaded and stockpiled.



HERE at the plant, the shells are placed in kilns where they are burned and converted into lime, a vital raw material in alkali manufacture.

P
BUSI
NOV.

A BU

PAGE 1

PERSONAL BUSINESS

BUSINESS WEEK

NOV. 20, 1954



You'd be smart to make your winter-vacation plans as soon as possible. The growing popularity of cold-weather holidays has tightened up accommodations at even the most exclusive resorts—both tropical and snowbound.

Florida is still the mecca for winter vacationing within the U. S.

And it still boasts the most fashionable place that an executive can pick in this hemisphere—Palm Beach and vicinity. Second on the social scale is the island of Nassau, not far off the Florida coast. Bermuda and Jamaica tie for third (but some people think Bermuda is too cold).

Palm Beach remains No. 1 largely because so many of America's prominent families have large estates there, invite many house guests. A constant round of parties makes it the social leader. Hotels there have the same high status. Here are three samples of the sort of place and charges you can look for (rates are daily for double rooms, American plan, except where noted):

- The Brazilian Court, where the old guard of Southampton and Newport, for example, do their gracious living (\$36 to \$44).
- The Coquille, just outside Palm Beach, is an ultra-chic newcomer, has highly modern architecture. It features meals and drinks at poolside, caters to a young, informal group. (European plan; \$30 a day up per person).
- The Bellevue Biltmore in Belleair, Fla., has elaborate grounds, two championship golf courses. A "Little Red Schoolhouse" on the grounds helps children keep up with classes at home (\$30-\$44).

The rest of Florida and much of the South have much to choose from—including the elegant Greenbrier at White Sulphur Springs, W. Va. But after Palm Beach, the socially conscious usually turn to the nearby islands in the wintertime. Here are some examples of hotels there:

In Nassau, a top social gathering-place is the British Colonial Hotel. All guests have privileges at the Bahamas Country Club, made famous by the Duke and Duchess of Windsor (\$40 to \$55). Also the Balmoral Club and the new Emerald Beach Club are tops.

Bermuda also has an outstanding social resort: The Coral Beach Club at Paget. It has the informal atmosphere of a country club (\$16 per person and up). On the same level are Pink Beach, Cambridge Beach, and the Mid-Ocean Club.

Jamaica has several top hotels, is a good choice if you like riding. The Good Hope in Falmouth, for example, has over 200 miles of riding trails in the mountains and jungles. Rates (\$40-\$52 daily) include your own horse, plus punches before lunch and rum cocktails before dinner.

Two other Jamaica resorts are at Montego Bay. Half Moon specializes in riding, features duplex suites right on the beach. Suites \$45.

Round Hill, nearby, has its own peninsula, tennis and golf facilities, an outdoor dining terrace. Double suites go from \$45 to \$50 daily.

Don't overlook the many other good resorts (page 101). You can find some equally plush hotels in the islands of St. Thomas, San Croix, and Puerto Rico—and, of course, Hawaii.

Take note of the Southwestern U.S., too. Arizona and California,

PERSONAL BUSINESS (Continued)

BUSINESS WEEK
NOV. 20, 1954

particularly, have some fine resort spots. Best known is Palm Springs, Calif., which is likely to be crowded.

For winter sports note such places as Smuggler's Notch, Stowe, Vt.; Lake Placid; Franconia, N. H.; and Sun Valley.

Stowe or Lake Placid are good spots if you are vacationing with a marriageable daughter during the Christmas holidays or midterm vacation. Both are popular with many young men from the Ivy League colleges who spend the period skiing.

Rates at the Lodge at Smuggler's Notch are \$44. Lake Placid Club rates run from \$32 to \$45 daily. At Sun Valley, both The Challenger Inn and Sun Valley Lodge charge from \$16 to \$30 for double rooms, European plan.

There are many more good places besides those mentioned here. Good source of information on some 80 winter resorts is a free booklet from Robert F. Warner, Inc., 588 Fifth Ave., New York.

Careful selection and proper care of your ties can add a lot to your appearance. Here are some tips from Langrock's of Princeton, N. J., which makes its own ties:

A silk tie should have a lining running from one end to the other, plus a wool inner lining (starting about 3 in. from each end) to add resiliency. Beware of the "tipped" tie—one that has a lining running only for a few inches from each end.

A good tie is loosely slipstitched, so the fabric slides up and down, and is cut on the bias so it will lengthen without losing its shape. Wool ties need no regular lining, since they are resilient in themselves.

It's best not to hang ties on a rack. Have a separate drawer where you can keep them folded. To get out wrinkles without pressing, roll the tie up from one end to the other, keep it that way in a drawer for a few days.

If you try cleaning a tie, dip the whole tie into the fluid, rather than just heavily spotted areas, so the over-all shade won't vary so much. Then rub gently from the center to the outside of the spot. It will do a fair job.

For the executive, a moderate-width tie is best—about 3 in. across at the wide end. Narrow ties are popular with college undergraduates.

A winter cover on your room air conditioner will protect it against the elements, prolong its useful life. You can get one for anywhere from \$3.50 to \$8.50.

Figure five to six years as the average life of your conditioner. Some authorities claim you can boost it to 10 years by having the unit removed and stored for the winter. The catch: It costs about \$35, including a routine cleaning.

The 35th edition of Montgomery's Federal Taxes (Ronald Press; \$15) is now available through your bookstores. Expressly designed for executives, it is a reference handbook updated to be a guide to taxes under the 1954 Revenue Code.

"Not one foot of U. S. Uscolite Pipe has ever had to be replaced!"



CORROSION JUST CAN'T LICK U. S. USCOLITE®

In every industry you will find U. S. Uscolite pipe and fittings stopping corrosion cold—as no other material can do.

Uscolite plastic pipe, fittings, valves, fume ducts stand up under acids, salts, alkalies and fumes both inside and out. Uscolite imparts no odor, taste or discoloration. It is not only corrosion-proof, but *tough*—it has high impact strength. Despite this strength, Uscolite is light in weight. Pipe assemblies are made with conventional piping tools. Once installed, no upkeep is needed.

A typical Uscolite performance record is told by a

chemical processing plant in Michigan. To handle highly corrosive raw and dilute hydrochloric acid, the plant 5 years ago began to use U. S. Uscolite Pipe. The results were so impressive that the plant's policy is to replace its previously-installed pipe *only* with Uscolite. Not one single length of Uscolite pipe has failed from corrosion, impact shock or any other reason, even when it replaced pipe that lasted only 5 months.

For replacement or entirely new piping, get in touch with any of the 27 "U. S." District Sales Offices or write address below.

"U. S." Research perfects it...

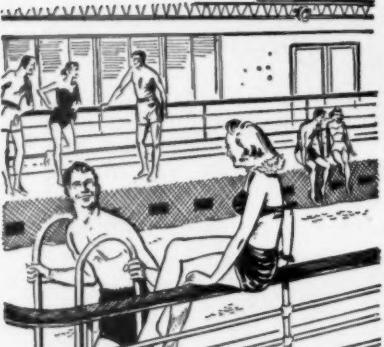
"U. S." Production builds it...

U. S. Industry depends on it!



**UNITED STATES RUBBER COMPANY
MECHANICAL GOODS DIVISION • ROCKEFELLER CENTER, NEW YORK 20, N.Y.**

Hoses • Belting • Expansion Joints • Rubber-to-metal Products • Oil Field Specialties • Plastic Pipe and Fittings • Grinding Wheels • Packings • Tapes
Molded and Extruded Rubber and Plastic Products • Protective Linings and Coatings • Conductive Rubber • Adhesives • Roll Coverings • Mats and Mattin'



Why Treat Your Cargo Better Than Yourself?

Enjoy the same splendid service that speeds your cargo to the Orient! Get sun, fun, perfect relaxation. Air conditioned luxury liners offer outdoor swimming, deck sports, movies, dancing—shopping and service facilities. Typewriters, daily stock quotations, radio communication. Combine business with pleasure.

S.S. PRESIDENT WILSON S.S. PRESIDENT CLEVELAND
Sailings Every 3 Weeks from San Francisco or
Los Angeles to Hawaii • Yokohama
Hong Kong • Manila • Kobe
Free folder—See your Travel Agent

**AMERICAN
PRESIDENT LINES**
311 CALIFORNIA ST., SAN FRANCISCO 4

this man
knows
where he's
going...



to get the
business
he wants

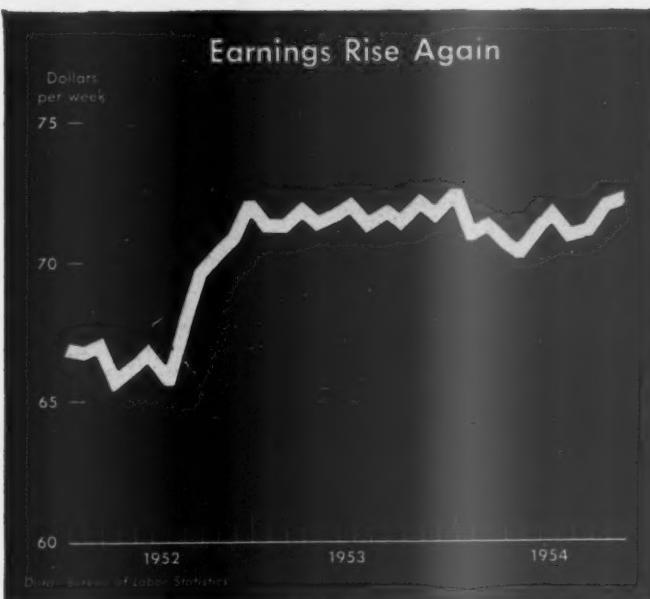


He uses Dodge Reports.
Nearly 1100 Dodge field men work for him locating
the needs for his products or services.
Write for booklet, "Dodge Reports, How to Use
Them Effectively."

DODGE REPORTS
Dept. B5415, 119 W. 40th St., New York 18
Timely, accurate construction news
service East of the Rockies
TAKE THE FIRST STEP IN EVERY SALE



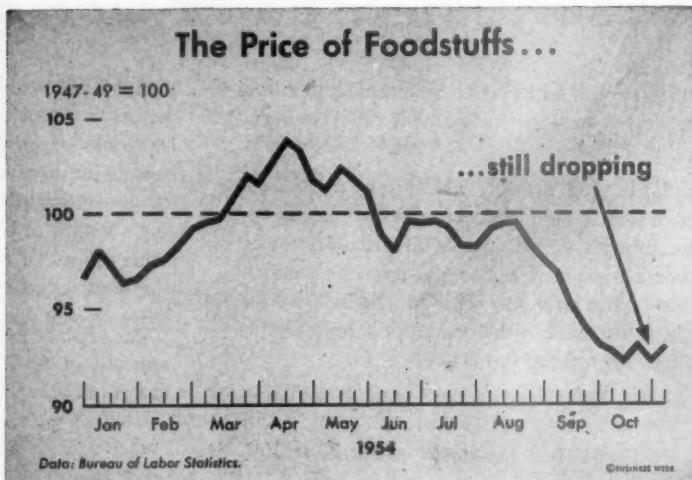
CHARTS OF THE WEEK



Heading for a New Record

In October, average weekly earnings of production workers edged up 0.5% to \$72.22 per week, just 0.2% below the all-time high of December, 1953. Earlier this year, earnings moved off their peak and in April set a low for the year—

almost 3% under the October figure. If the usual seasonal increase takes place in November and December and the recovery of the past three months is continued, this year may set a new record.



Is the Decline Over?

By now, the end of the decline in the price of foodstuffs that began last April should be in sight. This seems likely be-

cause (1) the seasonal peak for marketing of corn and hogs is near; (2) prices for sugar and cocoa, which were wan-

IT T
LOW

1 Th
expert
tractors
plan be
William
Presby

2 Th
tions
from 3
tion, qu
for no-
Weathe
cabinets
unit, w

G.E. HAS THE ANSWER TO AIR CONDITIONING PROBLEMS IN ANY OFFICE, STORE OR FACTORY



G-E climate survey points way to efficient, unobtrusive installation in Kansas City church

Can you find the air conditioners in this picture?



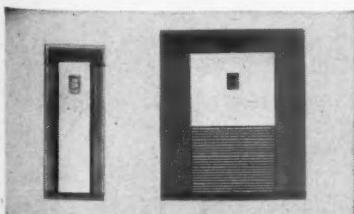
1 Thorough survey by G-E trained experts. Here Mr. H. G. Frazier of Air Contractors, Inc. (left) goes over installation plan based on indoor weather study with Dr. William E. Phifer, Jr., Minister of Central Presbyterian Church, Kansas City, Mo.

You'll have to look hard to find any signs of air conditioning in this repose church interior. Actually, four 10-ton General Electric packaged air conditioners are enclosed in housings *outside* the stained glass windows. This simple and effective means of air conditioning a large space, without ductwork or costly structural changes, was proposed by Air Contractors, Inc., local G-E contractors, after a thorough heat-gain and heat-loss survey of the church structure. Installed in the early part of this year, these packaged air conditioning units handled a July-August attendance increase of 24% effectively, quietly, and economically.

G.E. takes the "guess" out of air conditioning. You can be sure of the amount of air conditioning you'll need, and learn where your units should be

placed in order to provide efficient area or zone cooling under any weather, occupancy or use conditions. Just ask your dealer to have his G-E trained experts make a climate survey for you.

Now's the ideal time to air condition. Right now, without any cost, your G-E dealer will make a climate survey of any interior area. Before the busy season sets in, you'll get the best prices, best delivery and most convenient installation. You can buy your G-E packaged units this month, begin paying for them in May, and enjoy fresh, filtered air (heated if you desire) right up till summer cooling is needed. Call the G-E dealer listed in your classified directory, or write General Electric Co., Commercial and Industrial Air Conditioning Department, Bloomfield, New Jersey.



2 The best in packaged air conditioners. G-E designed and built • 5 sizes, from 3 to 15 tons capacity • Simple construction, quiet operation • Easily directed air-flow for no-waste, no-draft circulation • Muggy Weather Control • Attractive streamlined cabinets • New sealed-in-steel refrigerating unit, warranted for 5 years' service.

Packaged AIR CONDITIONERS

Progress Is Our Most Important Product

GENERAL  **ELECTRIC**

SIZING UP PEOPLE

Shows how to size up people—their personality, intelligence, and ability. Gives help on determining how people differ; on grading human abilities, such as intelligence, mechanical and engineering aptitudes, etc.; on estimating trustworthiness. Shows how glands affect personality, how aptitude tests are helpful, how human abilities can be best used in business, etc.—with countless examples taken from business and industry. By Dr. Donald A. Laird and Eleanor C. Laird, 270 pages, \$4.00.

SHOWMANSHIP IN PUBLIC SPEAKING

A master public speaker shows you the whole bag of tricks of showmanship, to make your talks lively, interesting, and successful. Not just a stunt book, but also a serious treatment of the showman's techniques—"getting the audience on his side." Includes many pointers on delivery, language, use of humor, stories, news, and visual material, audience participation, etc. By Edward J. Hegarty, 236 pp., \$3.75.

MAKE YOUR BUSINESS LETTERS MAKE FRIENDS

Offers 12 ways to improve your business and your job with letters that promote good human relations. Shows how to measure your letter-writing ability; how to develop an individual style, avoid wasteful words, poor organization, and trite expressions; how to write personal letters that really sell. Gives self quizzes to measure your progress. Chapters on the art of dictation, punctuation, and correct usage are included. By James F. Bender, 250 pp., \$3.75.

HOW TO SELL THROUGH MAIL ORDER

A manual explaining every phase of mail-order selling and showing how to use it profitably in hundreds of businesses. Takes up everything from selecting a salable product to analyzing coupon ad and mail campaign results. Tells how to determine prospects and reach them via newspapers, magazines, radio, direct mail, etc.; how to prepare copy and layouts. By Irvin Graham, Pres., Irvin Graham Agency; Editor, Mail Order Business, 466 pages, \$6.00.

— SEE THESE BOOKS 10 DAYS FREE —

McGraw-Hill Book Co., Inc., Dept. BW-11-20
330 W. 42 St., NYC 36

Send me book(s) checked below for 10 days' examination on approval. In 10 days I will remit for book(s) I keep, plus few cents delivery, and return unwanted book(s) postpaid. (We pay delivery if you remit with this coupon—same return privilege.)

- Laird & Laird—*Sizing Up People*—\$4.00
- Hegarty—*Showmanship in Pub. Speaking*—\$3.75
- Bender—*Make Your Business Letters Make Friends*—\$3.75
- Graham—*How to Sell Through Mail Order*—\$6.00

(PRINT)

Name

Address

City

Zone

State

Company

Position

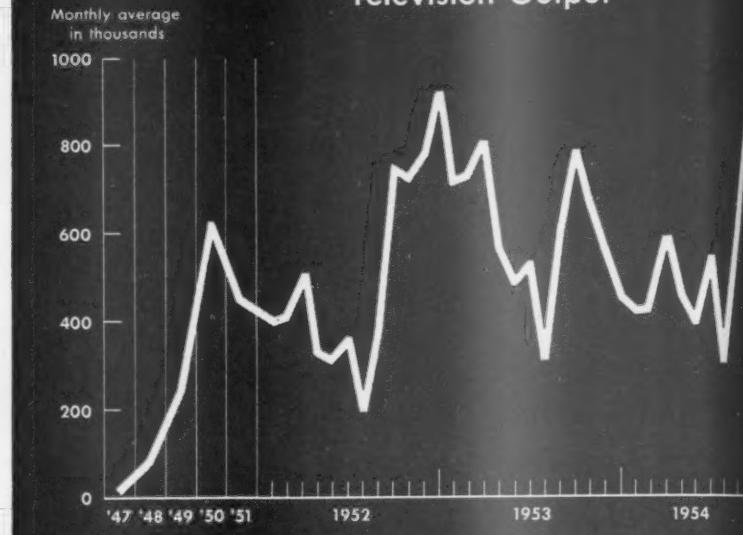
For price and terms outside U. S., write McGraw-Hill Int'l., N.Y.C.

BW-11-20

ing, seem to be edging upward again; (3) butter has been selling above the support price; and (4) grain prices have

strengthened. Thus the farmer may soon get a little relief in the form of higher prices.

Television Output



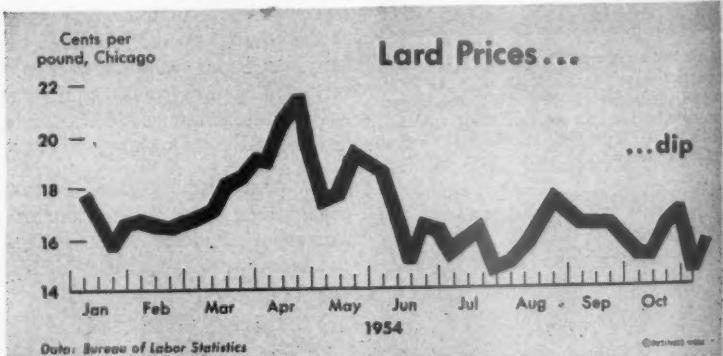
On the Way up Again

Is the market for television regaining its strength? Will the general upward trend from 1951's slump continue as the fever of waiting for color subsides? These are questions you might ask when you look at recent production figures.

A record 947,000 sets were produced in the five-week period of September,

1954. Although the year got off to a poor start—with output at the end of May trailing year-ago figures by more than 30%—the decline had shrunk to around 20% by the end of August. Then September's lead of 23.1% over the same month last year again narrowed the year's loss to 14.3%.

Lard Prices ...



As Output Rises

The price of lard has been taking some steep drops. Increased production, resulting from the heavy marketings of hogs, brought about the decline. In a

recent week, lard prices dropped as much as 13%. Hog prices have been declining for the past six months.

From the Mines,



Refineries and
Laboratories

of International

“Salt Headquarters”... through
teamwork with Industry comes
know-how to speed production
and save money in thousands
of manufacturing processes



INTERNATIONAL SALT COMPANY, INC.

Producers of STERLING SALT • SCRANTON, PENNSYLVANIA

SALES OFFICES: Atlanta, Ga. • Chicago, Ill. • New Orleans, La. • Baltimore, Md.
Boston, Mass. • St. Louis, Mo. • Newark, N.J. • Buffalo, N.Y. • New York, N.Y.
Cincinnati, O. • Cleveland, O. • Philadelphia, Pa. • Pittsburgh, Pa. • Richmond, Va.
ENGINEERING OFFICES: Atlanta • Buffalo • Chicago

NEBRASKA PRESENTS GREAT OPPORTUNITY AS PLANT LOCATION

With no state debt and operated on the pay-as-you-go principle, Nebraska is one of the last remaining strongholds of early Americanism.

It has a fine, healthful climate, and happy, hard-working, clear-thinking people. Present day farm mechanization makes it necessary for many of them to seek other than agricultural employment.

Smart, resourceful and dependable, these farm-bred men and women will show higher man-hour production than is believed possible to obtain anywhere else. *This is a matter of record.*

Here you will also find:

- Low cost electric power
- Abundant natural gas
- Practically unlimited constant-temperature water
- Main line transportation in all directions
- No franchise, state income or other crippling taxes
- Progressive communities organized and ready to build plants for sale or lease.

All these factors add up to LOWER-COST, TROUBLE-FREE OPERATION

If you are interested in acquiring more details—the labor available in various communities, power and fuel costs, terms under which buildings will be leased or sold, etc.—we shall be glad to serve you, and to hold your inquiry in confidence.

DIVISION OF NEBRASKA RESOURCES
State Capitol — Lincoln, Nebraska

GOVERNMENT

At Last, A Machine Reserve

Pres. Eisenhower's approval sets in motion the long-deferred plan to buy strategic machine tools for reserve. Makers of the more complex machines will benefit.

After two years of pulling and hauling, the Defense Dept. is about to put its reserve tool program into practice. Pres. Eisenhower has now formally approved the Pentagon's plan.

Within the next seven months, up to \$100-million worth of additional contracts will be awarded to builders of long-lead-time machine tools (BW-Nov. 6 '54, p34). That's on top of the more than \$300-million to be spent on tools for military equipment already on order. At the industry's current volume of new orders, the \$100-million represents about two months extra business.

For the tool builders, this is a welcome shot in the arm. Their shipments continue to exceed new orders, and their 3.2-month industrywide backlog is far from being evenly distributed. They're all hot on the trail of new orders. However, only a handful of companies make the long-lead-time machines, the ones that take much longer to build than the ordinary lathe or planer. For the industry as a whole, the Defense Dept.'s action is most important as the possible sign of a broader and continuing program.

• **Where It Goes**—The reserve tool program has two main purposes: (1) to round out or modernize existing but inactive military production lines, and (2) to set up new lines in advance for future output of weapons.

The spending of \$100-million extra will break down like this:

Air Force—\$85-million, mostly for extra tooling for the Super Sabre, the delta-wing F-102 fighter, the supersonic delta-wing B-58 bomber, the B-66 light bomber, and new Curtiss-Wright and Pratt & Whitney jet engines. Among the tools: stretch-forming presses, large boring machines, and slab-type planers.

Navy—\$14-million, mostly for reserve tooling to produce turbines, projectiles, and fuses, also for a 200-in. gear cutting machine for the marine reduction gear plant at Lynn, Mass.

Army—\$1-million, mostly for tools to produce medium tank engines and fire control equipment.

Before the first orders are awarded—and whether by negotiation or by general bidding—some details must still be settled. For example, there's the question of where the tools should be kept:

installed in active contractors' plants or in new "shadow" plants, stored in government warehouses, or reserved in tool builders' plants. Each project may be handled differently.

• **Out of Vance**—The reserve tool program stems from a proposal made in January, 1953, by a government advisory committee headed by Harold S. Vance, then Studebaker Corp. president. The Vance committee had studied how to avoid the machine tool bottlenecks that had snagged the World War II and Korean buildups.

The committee proposed that the military should figure out long-range needs, buy the plant and equipment to fill in any gaps in the industry's capacity, then keep this capacity up to date and in standby condition. In the committee's minds, too, was a desire to keep the strategic machine tool industry—a notably feast-or-famine business—in good health for quick expansion in time of need.

• **What Happened**—The Vance plan caught the fancy of the Truman Administration. A request for \$500-million appropriations for reserve tools and facilities was tacked on the budget, with the implication that similar sums would be needed in later years.

When the Eisenhower Administration came in, the \$500-million fund was retained on the books, though Defense Secy. Charles E. Wilson commented that the reserve tool program and the "broad mobilization base" concept in general—was too costly. Months later, when it came to voting the actual appropriations, Congress cut the fund in half, partly due to Wilson's lukewarm support for the program at Congressional hearings. Not a dime of this money was spent in the next 12 months.

Last spring, Pentagon officials asked that the \$250-million fund be continued for another year, but the House knocked it out when officials could not say how the money would be spent. The Senate restored \$100-million later when Defense Dept. officials came up with a more specific program, and the House acceded.

• **Another Plan**—Also going the rounds in Washington is another tool-buying plan. The Business & Defense Services Administration of the Commerce Dept. is working on a scheme to stock-

pile elephant tools—the huge precision machines that make other machines—at a cost of about \$40-million. This would be financed under the \$2.1-billion borrowing authority of the Office of Defense Mobilization. However, the plan is progressing slowly.

Exec Stockpile

ODM is giving refresher courses to businessmen with experience in wartime jobs in Washington.

Some 50 industry executives will be formally inducted into the Office of Defense Mobilization's "executive reserve" in Washington on Dec. 1. They are pioneers in what ODM hopes will become the government's civilian counterpart to the organized military reserve.

The group includes men like Simon D. Strauss, American Smelting & Refining Co. vice-president; Osgood V. Tracy, in charge of petrochemical sales for Standard Oil Co. (N.J.); Thomas R. Reid, Ford Motor Co.'s director of civic affairs, and James Boyd, Kennecott Copper Corp.'s exploration manager. These are businessmen who served as full-time officials or part-time consultants in Washington mobilization jobs during World War II or the Korean conflict.

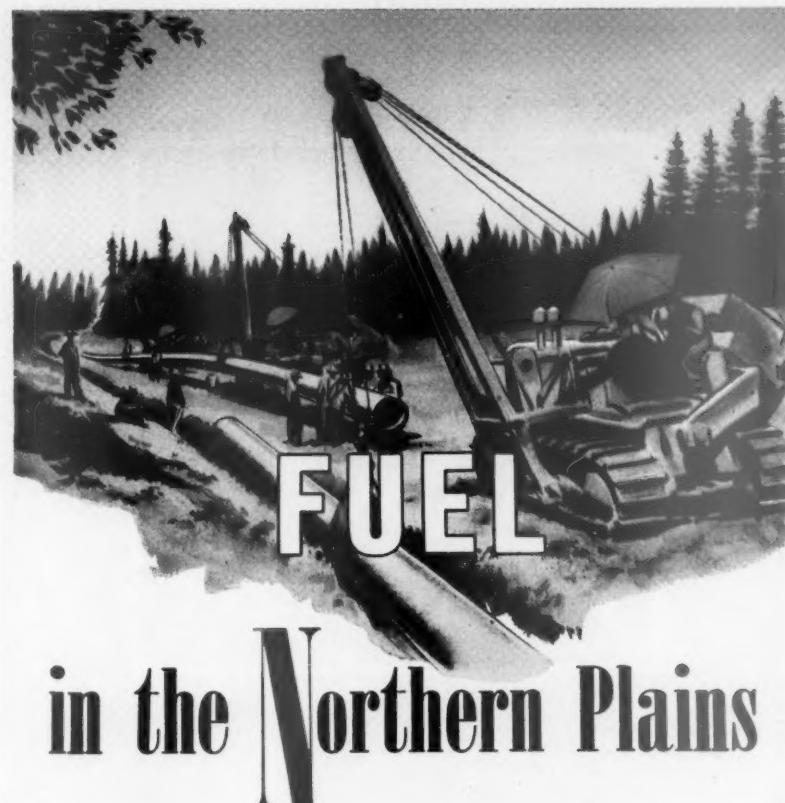
Now they're coming back to Washington for a couple of days a year. As ODM's plan shapes up now, they will get specific jobs—extra positions the agency thinks it would have to fill in case of war, high-level policy posts dealing with production controls, raw material allocations, price and wage controls, manpower, and the like.

• **Keeping Up to Date**—The idea is to keep their hand in, mainly through consultation with the Civil Service professionals who handle basic operations in mobilization. They may even take part in "war games," paperwork versions of military maneuvers, in which they would have skull-practice in the sort of thing they would have to do in case of war.

During the rest of the year, each ODM division plans to keep its reserve personnel on a mailing list for reports on activities.

In all, ODM figures it would need about 200 businessmen-reservists to augment its regular staff of 100-odd Civil Service executives in an emergency.

• **Idea to Spread**—ODM regards the



Once considered a valueless by-product of the oil fields, natural gas has become one of the major resources of the Northern Plains.

More than 8,000 miles of Northern Natural Gas Company pipelines . . . enough to reach across the nation from New York to Los Angeles and back again . . . supply 309 communities with the hot breath industry needs for its work.

Performing many of its 21,000 known jobs, natural gas pasteurizes milk, melts pig iron, fires brick and cement in the Northern Plains . . . is even used as a raw material for manufacturing nitrogen fertilizer in a huge Nebraska plant. One of the most adaptable fuels, natural gas can be adjusted to provide

a breath of warmth to dry ink . . . or a blast of heat to process iron ore.

Northern Natural can now supply a billion cubic feet of natural gas daily, enough in a single day to heat the average home for more than 7,000 years. Reserves controlled by Northern Natural now total 9.1 trillion cubic feet, enough to fill a 12-inch pipeline reaching from the earth to the moon more than 8,000 times.

Dependable, economical . . . natural gas is an impelling reason for establishing your industry in the Northern Plains area of Nebraska, Minnesota, Iowa, the Dakotas and western Wisconsin. Important, too, are vast agricultural and water resources . . . iron, gypsum and gold . . . a huge rail, air and water network . . . and a ready supply of intelligent, co-operative workers.

Study the Northern Plains carefully when you consider a new factory or branch. Our Area Development Department can help you. Write Northern Natural Gas Company, Omaha, Nebraska.



Northern NATURAL GAS

**These Are the Northern Plains States: MINNESOTA
IOWA • NEBRASKA • THE DAKOTAS • WISCONSIN**



that's why

pure white

Fort Howard Paper Towels

offer you greater towel economy!

The Fort Howard method of treating pulp fibers produces pure-white paper towels that dry faster, feel better, give you greater towel economy!

Take Fort Howard's pure-white Handifold: Controlled Wet Strength keeps Handifold strong and firm when wet, without sacrificing softness or absorbency. Stabilized Absorbency means that Handifold retains its drying ability regardless of towel age. And, like all Fort Howard Paper Towels Handifold has sufficient body for maximum absorbency.

Each of the eighteen grades and folds of Fort Howard Paper Towels has these three requirements of a good paper towel. In addition, all Fort Howard Towels are Acid Free . . . feel good, are easy on your hands. Call your Fort Howard Distributor Salesman today!



**FORT HOWARD PAPER COMPANY
GREEN BAY, WISCONSIN**



For 35 Years
Manufacturers of
Quality Towels,
Toilet Tissue and
Paper Napkins



new project as a pilot operation. If it works out well, the agency expects other government departments that have important wartime roles to follow suit.

Commerce Dept.'s Business & Defense Services Administration, which next to ODM is Washington's main industrial mobilization planning agency, already has an executive reserve system of sorts. It's based on the steady stream of businessmen who serve six-month periods as operating officials in BDSA's 20-odd industry divisions and as members of the agency's several dozen industry advisory committees.

ODM hopes other agencies will adapt its more formal executive reserve system in which a businessman will be matched with a specific government post. ODM would then coordinate the inter-agency program, to prevent competition among several agencies for the same industry man and to see that no single firm becomes a major recruiting ground for executive reservists.

For the most part, the new program was worked up for ODM by R. Carter Wellford, personnel manager of du Pont's film department, and James H. Taylor, Procter & Gamble's director of industrial relations. Taylor is now on leave from his company, serving as ODM's assistant director for manpower.

• Possible Snag—Their ambitious plan could be snagged by a well-known bureaucratic tradition: to create brand-new agencies in an emergency. That's the way it worked in World War II and the Korean conflict. Old-line agencies were shunted off to the side, newborn mammoths such as the War Production Board and the Office of Economic Stabilization blossomed to take up the emergency programs.

To anticipate this problem, the Cabinet is supposed to study the matter of wartime government organization sometime next year.

• Executive Stockpile—The new plan resembles a proposal made this summer by the nonprofit, nonpolitical National Planning Assn. NPA suggested that 5,000 private executives be recruited for an executive stockpile that might be needed in Washington for full-scale war.

There's one big difference between the NPA proposal and ODM's plan. NPA recommended that reservists take lengthy training courses in Washington each year. The ODM planners frown on this. They think such courses would bore the reservists stiff. They say it would be hard to keep high-pressure businessmen interested enough to stay long in Washington unless they could be given some operating functions. And there just aren't enough of these around in peacetime.

If it
expects
that
follow

& De
which
main
gency,
system
stream
month
DSA's
mem-
en in

s will
ve re
essman
govern-
coordin-
to pre-
agen-
and to
a ma-
ive re

rogram
Carter
of du
nes H.
ector of
ow on
ing as
mann-

s plan
wn bu-
brand-
That's
Var II
a agen-
, new-
ur Pro-
f Eco-
o take

e Cab-
tter of
some

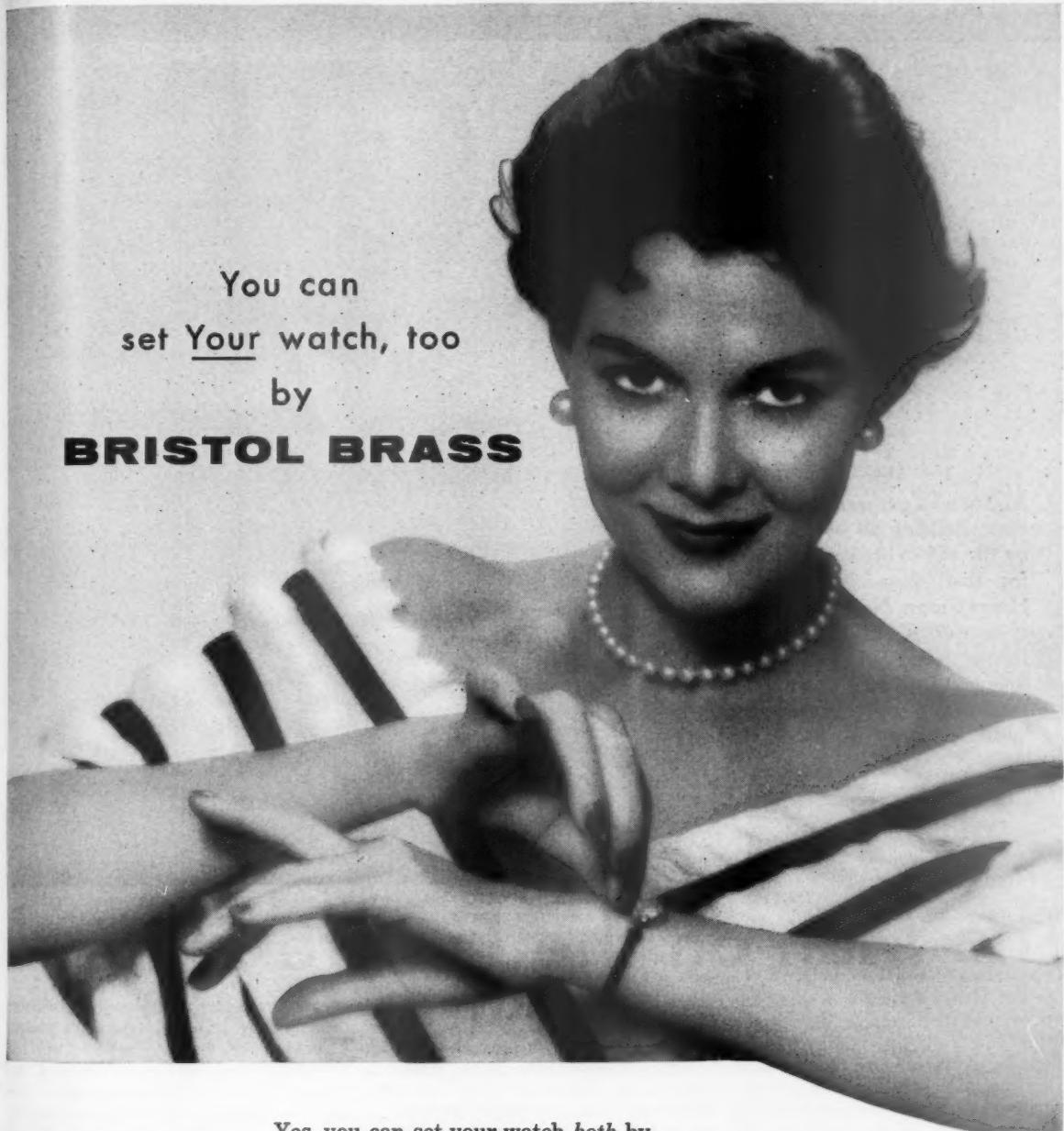
y plan
sum-
al Na-
gested
be re-
e that
on for

between
plan-
ts take
lishing-
anners
courses

They
high-
nough
unless
erating
nough

You can
set Your watch, too
by

BRISTOL BRASS



Yes, you can set your watch *both* by Bristol's service and quality, when you need *Clock Brass*.

For this modern mill is one of the largest and longest-experienced makers of this product . . . and no one makes it better.

Bristol *Clock Brass* comes to you "on the button" . . . in large coils, without welds . . . with width and gage tolerances consistently uniform. And all gears and parts blanked from it are remarkably free from burrs.

Ask any manufacturer (and there are scores of them) who fabricates parts from Bristol *Clock Brass* . . . he'll tell you what we mean by "Bristol-Fashion."

The BRISTOL BRASS CORPORATION has been making Brass strip, rod and wire here in Bristol, Connecticut since 1850, and has offices and warehouses in Albany, Boston, Buffalo, Chicago, Cleveland, Detroit, Milwaukee, New York, Philadelphia, Providence, Rochester, Syracuse. The Bristol Brass Corporation of California, 1217 East 6th St., Los Angeles 21. The Bristol Brass Corporation of Ohio, 1607 Broadway, Dayton.

"*Bristol-Fashion*" means Brass at its Best



A man who can own the Empire State Building all by himself is on the way to becoming a legend for that alone. But for Col. Henry Crown, New York's tallest skyscraper is only the topping for a broad business empire founded on Chicago stone and mortar, and well spangled with dollar signs.

The Man on the Empire State

When Henry Crown took over sole ownership of the Empire State Building in New York last month, a lot of people heard his name for the first time.

Yet in Chicago he has long had the reputation of being the city's richest man. Some say his wealth exceeds a quarter-billion.

- He holds a stake in the Hilton Hotels Corp. second only to that of Conrad Hilton himself.

- He owns, along with two associates, the biggest block of stock in the Rock Island railroad.

- He has a finger in a host of other activities ranging from coal and West Indian sugar to office buildings and buses.

- Roots—It all began with an obscure building materials operation in Chicago. It was in the dog-eat-dog sand-and-gravel business in that city that Crown got his real start. His operation grew, in the two decades between world wars, into one of the biggest of its kind—maybe even the biggest. And, from this solid base, Henry Crown has burst onto

the national scene in a blaze of dollar signs to match the gaudiest.

His rise was in the sprawling, racket-ridden Chicago of the 1920s. And if he learned the deer runs of politics along with the building trade, he also acquired the respect of the Windy City's upper-crust business bigwigs and bankers.

I. Postwar Empire

When Crown became the second full-owner of the Empire State in the building's history, this was only the climax of a series of postwar deals, any one of which made more business history than the average man makes in a lifetime.

Coming out of the Army, where he had served as colonel in the Corps of Engineers, Crown returned to Chicago and his Material Service Corp.—the smart, profitable building materials firm he had reared in the two prewar decades.

Most men would have been content

with the profits and growth that looked like a sure thing in Chicago's postwar construction boom. But the war had made a change in Crown's outlook, had taken him out of the day-to-day routine of the business. At 49, he was restless, ready for something bigger.

- Fishing—In 1946, with Material Service for a float and a firm line of credit for bait, Crown began to fish in the well-stocked rapids of postwar U.S. business.

Among his first catches was a real estate venture on New York City's East Side. Crown tossed \$2-million into a syndicate headed by William Zeckendorf's Webb & Knapp. The syndicate planned to build on the site, but later sold the land for the United Nations permanent headquarters. Crown is said to have cleared \$600,000.

- Gamble—Midtown real estate is one thing, but to many an investor the bonds of a bankrupt railroad might have looked pretty scrawny in the first, plush postwar years. But Crown, schooled in slow-to-mature real estate ventures, is



CORNING GLASS BULLETIN

FOR PEOPLE WHO MAKE THINGS

Sunglasses for circuit breakers. If you were responsible for the health of a battery of big outdoor circuit breakers, you'd be pretty careful about maintaining the dielectric strength of the oil which is used in them.

Exposure to too much sunlight tends to cause this oil to deteriorate and undermine its dielectric strength. So Canadian Westinghouse Co., Ltd. fits circuit breakers for outdoor use with "sunglasses" on the only part where the sun can get at the oil—out near the tips of the bushings that project like horns from the breaker tank.



Actually these "sunglasses" are oil gauges, but they're made of low actinic glass and it's the "low actinic" that keeps harmful rays from sapping the strength of the oil. Here's how this glass tames wayward angstroms:

Wave length (Angstrom Units)	Percent Transmission
3000	0
4000	1
5000	4

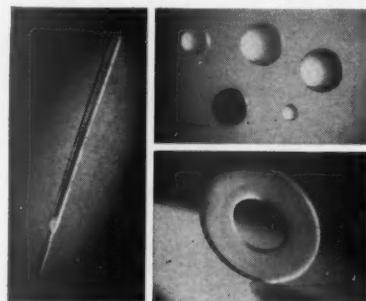
Low actinic is just one of many special glasses Corning has developed for handling problems of radiant energy. Not only the sun's rays but rays of all kinds—from cosmic to infrared, from X- to radio—find a formidable opponent in glass.

► If you're interested in details, we have them for you. Just write us for our *color filter catalog*. It's full of information on how to stop some wave lengths and let others go by. Or we'll be glad to have a look at your own special ray-control problem, if you like. Our researchers are better than fair-to-middling at turning problem rays into rays of hope.

On non-human tolerance. Tolerance has a sort of chameleon-like aspect: in humans we want it broad and generous (Ralph Waldo Emerson has worked that one over pretty thoroughly); in engineering materials we often want it the opposite—

narrow and close. (We'd like to work this one over briefly, because it's one of the things glass has that may interest you.)

Take the bore in thermometer tubing, for instance—the hole the



mercury works in. It's often so small you couldn't force even a split human hair into it. But, even when we extrude it in mile-long lengths, we hold it to that dimension within a tolerance of $\pm .0003"$.

And the glass jewel bearings which delicate instruments like potentiometers use—they're made from rods accurate to a tolerance of $.0235"$. We make the rods. The instrument manufacturer buys them and makes the bearings—and gets a bonus, too, because he doesn't have to final polish them with abrasives. This saves time and money.

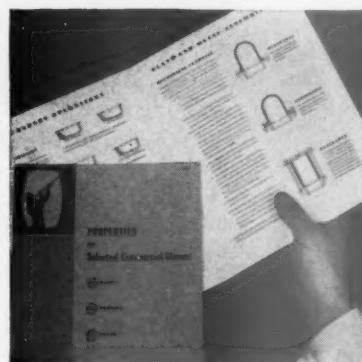
The glass rotary sealing rings shown above are part of an almost all-glass chemical pump. They keep liquids from leaking out when the pump's in action, which means they must fit tighter than tight. We make them to $\pm .0005"$ tolerance. And we make them of Vycor brand 96% silica glass which maintains its dimensional stability, resists acid corrosion like no other commercial material we know of, and stands the thermal shock that develops if the pump runs dry.

► If you'd like more on the tolerances you can hold glass to, on its ease of processing and its thermal and physical strength, the next paragraphs tell you about two books that are good reading.

Good reading, if . . . If you know an engineer who's hungering for some really technical information about this complex material called glass, you might recommend adding a couple of brass-tack bulletins to his bill of fare.

One of them condenses into fourteen pages a whale of a lot of useful information on mechanical and electrical properties, thermal stresses, heat transmission, corrosion resistance, viscosity, and other measurable attributes of PYREX, CORNING, and VYCOR brand glasses. We file it as Bulletin B-83; its more imposing title is "Properties of Selected Glasses."

The other one is Bulletin B-84—"Manufacture and Design of Commercial Glassware." It talks about glass melting. It describes the problems and limitations of designing blown glassware and pressed glassware. It gives forth on annealing and tempering, hole drilling, sealing components together, metallizing, assembling glass and metal, and other useful subjects.



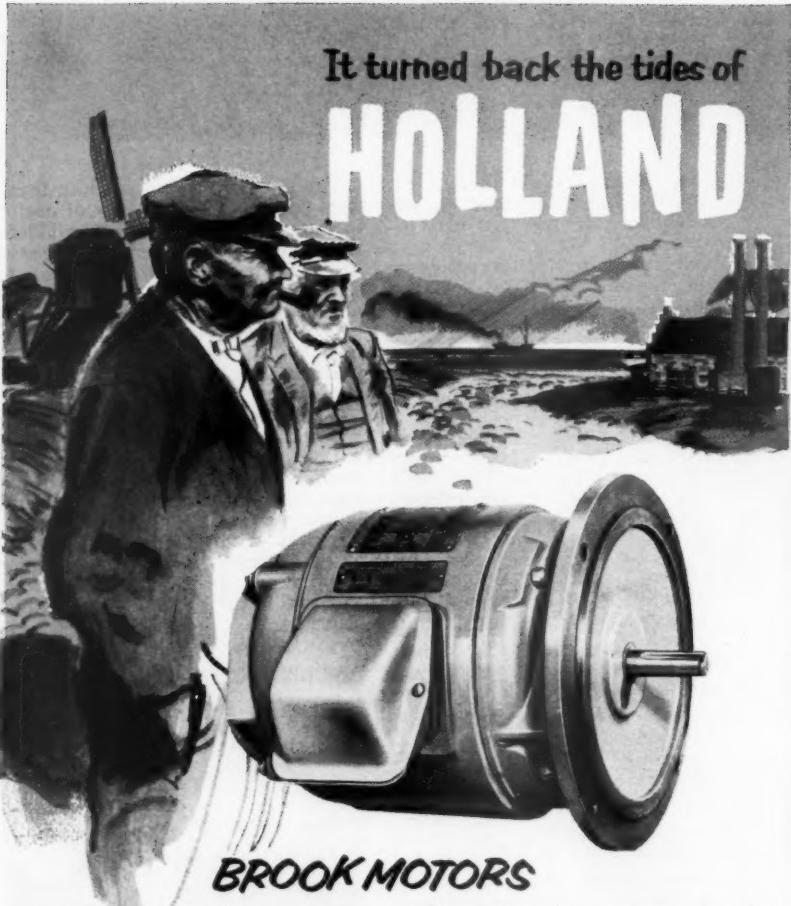
► Neither of these booklets is the kind your engineer friend will curl up in bed with, but both can contribute to his understanding and profitable use of glass as the versatile and often surprisingly talented design and engineering material it is. We'll be glad to send you, or him, or both of you, copies.

We offer *carte blanche* service. If sun, nor reading, nor tolerances aren't currently weighing you down, let's put our heads together over whatever materials or processing problem may be specific with you right now. Could be glass has something to offer. If it has, we'll be delighted to expound at pertinent length. If it hasn't, downhearted as we'll be, we'll tell you so. May we hear from you?

Corning means research in Glass

CORNING GLASS WORKS 20-11 Crystal St., Corning, N.Y.





It turned back the tides of
HOLLAND

BROOK MOTORS

can meet all your operating requirements, too!

It takes a quality motor of proven performance and dependability to stand up to the destructive forces of nature . . . it takes *Brook*, the world's *most respected* motor! Every Brook motor is built with the most precise care to give a full lifetime of service . . . mica-insulated stator slots and windings are impregnated and baked to resist moisture, dust, heat and cold here in the U. S. and in every corner of the world. They meet or *surpass* NEMA standards, use standard bearings, American threads and nuts. All major types are available from stock, in a wide range of horsepower sizes. Easily serviced in any shop . . . parts quickly obtainable everywhere. Ideal for original equipment manufacturers, as replacement motors, for products destined for export to any country. Choose *Brook* . . . the world's *most respected* motor—built by the world's *most experienced* manufacturer.

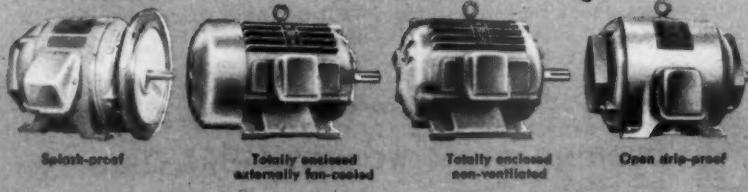
1904-1954 ...respected and used the world over for 50 years!



BROOK MOTOR CORPORATION

3555 W. Peterson Ave., Chicago 45, Illinois

Write for FREE catalog!



HENRY CROWN: "We bought a coal mine so we could use our trucks in winter."

adept at estimating in advance the matured heft of the meat.

Crown put \$4-million in the pot on defaulted bonds of the Chicago, Rock Island & Pacific RR. The odds were heavily against him: the Rock Island had been in receivership for years.

But in 1948 the road broke through the legal tangles, and Crown traded his bonds for 100,000 shares of common and preferred stock.

• Steaming Ahead—Crown then joined two fellow Chicagoans—James Norris, multimillionaire grain merchant, and Charles Deere Wiman, president of Deere & Co., manufacturers of farm implements—to form a syndicate. Their aim was to modernize the Rock Island.

They had a competitor for the driver's seat in Robert R. Young, who held, together with his Allegany Corp., 250,000 shares.

Young hoped to use the Rock Island as a link in a transcontinental line, but this idea never panned out. Instead, things wound up with Crown and his two associates buying Young's interest. As part of the deal, Crown also took over personally Young's holdings in Seaboard Air Line RR. Young wanted to dispose of them; Norris and Wiman weren't interested, but Crown seldom haggles over details if he sees a growth potential.

The rest of the Seaboard tale is history: In the rise of Seaboard stocks, Crown more than doubled his money.

As for the Rock Island, the syndicate now controls 24% of its shares, and Crown serves actively on its executive committee. He likes to watch how his money is spent.

"Real satisfaction," Crown says, "comes from creating, building, or tak-

ing a
too we
• Hot
got in
pretty
spreadin

It
Stephe
that C
Healy
acquisit
Contract
Crown
in the
of the

And
Only, a
there w
was the
ket. B
Hilton
buy it,
been fo
lion in
the sea

When
with C
about a
rooms.
operatio
rooms
• Emp
into th
later th
first in
State w

At t
the bu
him, b
State w

Rask
headed
real est
the bu
million
Decembe
short S
Crown.
\$3-millio
operatio
among
Crown,
chairma

Crow
face w
Corp. o
State.
Young
20% i
owners,
65% b
final st
35% fr

II. Ha

The
assets—
compan
more—is
a fast w
decision

BUSIN

ing a business that hasn't been doing too well and making it better."

• Hotels—In his hotel venture, Crown got into a chain that was already doing pretty well for itself, but has been spreading out even more since.

It was through his old friend, Stephen A. Healy, Chicago contractor, that Crown first met Conrad Hilton. Healy was trying to sell his wartime acquisition, the Stevens Hotel (now the Conrad Hilton). Hilton was interested. Crown acted as a go-between for Healy in the negotiations with Hilton for sale of the 3,000-room titan. Hilton bought.

And that should have been that. Only, as in the case of the Rock Island, there was something else. This time it was the Palmer House, also on the market. By the time things settled down, Hilton and Crown had joined up to buy it, the Hilton Hotels Corp. had been founded, and Crown had \$3-million in stock in the new corporation—the second largest block.

When Hilton began his association with Crown, he owned and operated about a dozen units with around 10,000 rooms. Today, there are some 37 units, operating or planned, with 37,000 rooms (BW—Sep. 18 '54, p186).

• Empire Tower—Office buildings came into the expanding Crown orbit a bit later than hotels; Crown acquired his first in 1948. But by 1950 the Empire State was already coming in sight.

At that time John J. Raskob, then the building's sole owner, approached him, but Crown then felt the Empire State was still too rich for his blood.

Raskob died that fall. A group headed by Roger L. Stevens, Detroit real estate man, made a deal to buy the building from his estate for \$51-million—\$13½-million in cash. But by December, 1951, the group was still short \$3-million. Stevens turned to Crown. Crown agreed to put up the \$3-million—in return for the biggest operating interest (just under 25% among the new owners). So it was Crown, not Stevens, who came out as chairman of the board.

Crown found himself again face to face with Young, whose Alleghany Corp. owned a 19% slice of Empire State. Again the result was the same: Young sold out to Crown. Another 20% interest, picked up from other owners, brought Crown's share to about 65% by 1953. Last month he took the final step. Buying up the remaining 35% from the Stevens syndicate.

II. Handling the Reins

The man who holds this fistful of assets—plus pieces of a number of other companies and directorships in several more—is a wiry, graying man of 58, and a fast worker when it comes to making decisions. He can put millions on the

line in a matter of minutes—or even at the ring of a telephone.

Crown made one such on-the-fly decision as he was putting on his coat to catch the Twentieth Century for New York. Stuart Colnon, president of one of the Crown firms, Freeman Coal Mining Co., had an appointment to put before Crown—for the first time—a project for a \$1-million expansion for the company. When he found that Crown was leaving in 15 minutes to catch the Limited, he hesitated, proposed coming back another time. But Crown said, "Make it brief," and O.K.'d the expansion before he left.

• Methods—That doesn't mean that Crown runs his affairs in any offhand manner. He has always been a hard worker, willing to keep long hours, and he still does it. Until a few years back, he signed every check that went out from Material Service; even now every check is signed by a Crown—his brother Irving, or one of Henry's three sons, all in the business.

Henry prefers to open his own mail and answer his own phone. In New York (where he spends about as much time now as in Chicago), he stays at the Waldorf-Astoria, of which he's a director. He brings no secretary with him, answers the phone in his suite himself (it's usually the presidential suite).

But Crown likes to delegate management, gives his men freedom to operate. He likes to feel, though, that he can help solve any problems. That's one reason his major postwar investments have a real estate tinge; he knows little about technical manufacturing processes, but has first-hand acquaintance with real properties. Another reason: the capital gains angle, and the resulting tax benefits.

III. Building on Concrete

Another tax angle provides Crown's own explanation of how a poor boy can get to the top of the Empire State tower in our high-tax economy.

"Sure there are taxes," he says. "But a Horatio Alger can still make it today if he incorporates. Remember, you get to keep half of what you make as a corporation."

Crown should know; he came up the hard way himself. Born in 1896 in Chicago, the third son of an immigrant father, he went to work early.

His first full-time job was a \$4-a-week clerk for Chicago Firebrick Co., of which his brother Sol was sales manager. Henry didn't even know it took both sand and gravel to make concrete, sent a customer two loads of sand instead. Sol agreed anyone so dumb should be fired—then found it was Henry.

• Ladder—Crown lost the job, but it was the first rung on the ladder that led

WE
BUY
AMERICAN

Within the last 15 months, Brown Boveri bought capital goods and material from 34 American manufacturers. Here are a few, representative Brown Boveri suppliers:

• Airco Company International • American Phenolic Corp. • Armco Steel Corporation • Bryant Chuck Grinder Co. • Cincinnati Grinders Incorporated • The Cincinnati Milling Machine Co. • Gisholt Machine Co. • Kearney & Trecker Corp. • Ohio Crankshaft Co. • United States Steel Corporation • Warner & Swasey Co.

Design, quality, performance and price are primary factors in our selection of vendors. We consider this good, sound business practice.

If you, too, want to buy the best in design, quality, performance and price, be sure to investigate Brown Boveri when you need Power Generation and Distribution Equipment.

buy brown boveri
... it's better business!

Can we serve you with any of these BROWN BOVERI products?
Steam Turbine Generators
Turbo Blowers & Compressors
Gas Turbines
Power Circuit Breakers
Lightning Arrestors
Mechanical Rectifiers
Radio Transmitters & Tubes
Betatrons for Clinical & Industrial Uses
Generator Voltage Regulators
Stop Motors

BROWN BOVERI CORPORATION
19 Rector St., New York 6, N.Y.

clues: TO THE SOLUTION OF MANAGEMENT MEN'S PROBLEMS.

Published—every Saturday.

Closing date—12 days prior issue date, subject to space available.

Rates—\$5.85 per line, minimum 2 lines. Half rate applies to Position Wanted classification only.

EMPLOYMENT

Selling Opportunities Offered

Manufacturers agents individuals or organizations who contact architects, material handling and plant engineers to sell automatically operated adjustable dockboard line Eastern, Southern and some Mid-Western territories available. RW-4499. Business Week.

Manufacturer's Representatives wanted by leading manufacturer of Rust Preventative Coatings for maintenance use. Experience in this field helpful. Operation—sell industrial supply distributors and assist their men in selling industrial accounts. Exclusive territories still available. Give full details, territory covered, background, etc., in first letter. Rust-Seal Company, 9808 Meech Ave., Cleveland 5, Ohio.

Opening of new territories now makes available exclusive franchises for Direct-A-Call, an unusually appealing telephone intercom system that has won wide sales acceptance. An ideal opportunity for qualified individual or sales organizations seeking to expand present operations. Excellent proposition for office equipment or specialty salesman capable of organizing and managing his own business. High volume and profit potential has already been proven by our widely established franchise holders. Low-cost and exclusive features, backed by aggressive advertising and merchandising campaign, open untapped new markets for telephone intercom among all types of small and large businesses, stores and institutions. See our advertisement on page 172 and write at once for terms and prices. Enclose outline of your qualifications. Connecticut Telephone & Electric Corp., 157 Britannia Street, Meriden, Conn.

Positions Wanted

Purchasing Executive. Graduate Engineer, broad experience engineering and purchasing, seeks greater opportunity. PW-4317. Business Week.

Executive position in South desired by former college teacher math chem. Age 40. Hard common sense with experience in public relations, promotion, administration, philanthropy. PW-4578. Business Week.

Selling Opportunity Wanted

Well known industrial supply distributor serving New England Area since 1880 wishes to acquire new and appealing items to enable diversification. Present efforts largely directed to textile industry. SA-4622. Business Week.

SPECIAL SERVICES

Need a market survey abroad? Thorough down-to-earth studies made in any country. Representatives all over the world. For details, write Overseas Business Services, McGraw-Hill International Corporation, 330 West 42nd St., New York 36, New York.

Manufacturers—Expand your Distributor organization and increase your turnover! Let us know what cities you are interested in and we will tailor a plan for you that should get immediate action. New, dynamic ideas, backed by years of experience. Merchandising consultants to one of world's largest marketing corporations. What we are doing for this client we can do for you. Address inquiries to SS-4603, Business Week.

A GOOD HABIT

is any habit which can benefit you. By watching for the "clues" section you will find employment opportunities—wanted.

Write for further information to: Clues Section, BUSINESS WEEK
330 West 42nd St., New York 36, N. Y.

Replies to Box Numbers

Address to office nearest you
NEW YORK: 330 W. 42 St. (36)
CHICAGO: 520 N. Michigan Ave. (11)
SAN FRANCISCO: 68 Post St. (4)

Business Service Section

Card Advertisements—
Write for Special Rates.

Yacht For Charter. Diesel yacht "Allmar", 75' of spacious luxury. Accommodations for eight guests plus crew of three. Seaworthy for cruising Florida, Cuba, Bahamas and throughout the Caribbean. Ample room for entertaining large groups in dining salon and on spacious decks. Available after December 1 at Ft. Lauderdale or Miami. Excellent for use in customer relations. For illustrated brochure, contact: H. I. Moul Box 1269 York, Pa. Telephone 8-1531.

Registered Patent Attorney

Patent Information Book, without obligation, G. Miller, 114BW3, Warner Bldg., Wash. 4, D. C.

EQUIPMENT

For Sale

Due to additions to our present fire fighting facilities, we have on hand some surplus equipment which we offer for sale . . . 10—750 G.P.M. Ahrens-Fox Pumping Engines. 10—750 G.P.M. Seagrave Pumping Engines. These engines are large bore double ignition motors which are adaptable to work other than fire fighting. Apparatus is complete, but may be in need of sundry repairs. For detailed specifications and bid forms, phone, wire, or write Room 400 City Hall, Chicago, Ill. Mr. Jos. Regan, Chief Storekeeper or Mr. Thos. J. Healy, Chief Salvage Technician. Sealed bids will be opened at 11:00 A.M. C.S.T. December 15, 1954.

Wanted

Wanted Aircraft Material Surplus or Termination inventories hardware—electrical, or components also raw stock, rod and bar stainless, aluminum, steel, brass send lists for cash offer to Collins Engineering Company 9050 Washington Blvd., Culver City, Calif.

BUSINESS OPPORTUNITIES

Choice Franchises Available with excellent opportunity in automatic merchandising. Run your own business, enjoy growing profits. Factory training. Read our cartoon display ad on page 124. Write Rudd-Melikian, Inc., 1947 N. Howard Street, Phila., Pa.

CHRISTMAS GIFTS

Give cheese this year. A beautiful colored brochure of Christmas Boxes is available. An attractive year-round program is included. We handle all details. Clearfield Cheese Co., Inc., Clearfield, Pa.

Large overstock, \$5.95 Ritepoint desk and table lighters, guaranteed; holds six months supply of fluid, \$24.00 a dozen; ideal for gift. Suburban Outlets, 23 S. 2nd St., Phila., Pa.

Free Xmas Gift Service! To each person on your Xmas list: I will send an attractive Xmas gift card with your name as donor, listing 24 leading magazines—Life, Reader's Digest, Esquire, etc. They select their favorite magazine and return to me in prepaid envelope. First copy arrives Xmas—you are then billed only for the subscriptions at reduced Xmas rates. Request sample of Xmas card, list, etc. Max Prager, 334 E. 98 St., Brooklyn, N. Y. "Representing Nat'l magazines since 1937."

BUSINESS SERVICES

PEACOCK CORPORATION

Anhydrous, Ammonia Bulk Plants & Propane Gas Plants installed. Write us for Free Literature. P. O. Box 268, Westfield, N. J.

vacant, selling—business opportunities of all types, special services and offerings and equipment offered and wanted.

after World War I to Material Service Corp. and later to that firm's dominance in the Chicago building supply market.

There are Chicagoans who will tell you Crown's early success with the firm was due in part to political influence. But Crown says: "If we had all of the political influence some people say we had back in those days, we were too dumb to know it."

He does recall one incident that started the rumor mills working. That was in 1921, when Anton Cermak, who had just become president of the Cook County commissioners, sent for him, discussed the building supply picture, and invited him to bid on the next county contract. Cermak suspected gouging by entrenched suppliers, wanted to see what an independent could offer (up to then, Crown's firm had not sold to the government).

Material Service's bid did turn out to be lowest, and Crown got the award. That sparked the rumor that Cermak had bought into the company. Crown denies this, says that at no time did any government official own any part of Material Service.

Cutting Corners—One thing that helped Crown break into the supply business was the fact that Chicago had always been a high-cost town for building. Crown had an eye for details that helped him cut corners and stay in the black in every depression year—though it was a tight squeeze. Material Service was one of the first users of the Lockport-to-Chicago canal, completed in 1928, and this enabled him to slice transportation costs.

Aroit handling of the financial end gave Crown the confidence of hard-shelled bankers. When the Foresman Bank went under in 1931, the First National, which took over its liabilities, decided to take a chance on Material Service's \$1.5-million in unsecured loans—and didn't regret it.

The general rise in demand for construction materials induced by government work projects helped boost sales for Material Service. Meanwhile, two of its biggest rivals had gone under.

Spreading—As the building supply business picked up in the late 1930s, Crown began to diversify his investments—at first in Chicago real estate.

Even in his postwar expansion outside Chicago, Crown hasn't neglected Material Service. He strengthened it by buying Marbleshead Lime Co. in 1948, and by developing his Lockport, Ill., quarry and gravel pit. Freeman Coal Mining Co. was originally acquired in 1939 to make use of Material Service's truck fleet in off season; Crown has built it into the second largest coal producer in Illinois—and it's still expanding. Even during Coal's postwar readjustment he put \$10-million into an automatic mining operation.

ADVERTISERS IN THIS ISSUE

Business Week—November 20, 1954

ACME STEEL CO.	166	DYKEN MFG. CO.	150	NORFOLK & WESTERN RAILWAY CO.	117
Fuller & Smith, French & Dorrance, Inc.		Agency—Krauske, Knott Co.		Agency—Hoover, Inc.	
AETNA LIFE AFFILIATED COMPANIES	104	EMHART MFG. CO.	67	NORTH AMERICAN VAN LINES, INC.	122
Agency—Wm. B. Hemington, Inc.		Agency—The Charles Bruner Co.		Agency—Applegate Adv. Agency	
ALLISON DIV., GENERAL MOTORS CORP.	125	FORT HOWARD PAPER CO.	188	NORTHERN NATURAL GAS CO.	187
Agency—Kudner Agency, Inc.		Agency—Baker, Johnson & Dickinson Adv.		Agency—Bozell & Jacobs, Inc.	
AMERICAN BLOWER CORP.	86	FORT WAYNE CORRUGATED PAPER CO.	60	THE OKONITE CO.	91
Agency—Brooks, Smith, French & Dorrance, Inc.		Agency—Doremus & Co.		Agency—Doyle, Kitchen & McCormick, Inc.	
AMERICAN CYANAMID CO.	119	GALLMEYER & LIVINGSTON CO.	62	OLIN MATHESON CHEMICAL CORP.	137
Agency—Hazard Adv. Co.		Agency—Van Steen, Schmidt & Sifton		Agency—Doyle, Kitchen & McCormick, Inc.	
AMERICAN FOREIGN INSURANCE ASSN.	147	GANNETT, FLEMING, CORDRAY &	63	OZALID PRODUCTS DIV. OF GENERAL	
Agency—Prince & Co., Inc.		CARPENTER INC.		ANILINE & FILM CORP.	46
AMERICAN MUTUAL LIABILITY INSURANCE CO.	33	Agency—L. E. McGivern & Co., Inc.		Agency—L. E. McGivern & Co., Inc.	
Agency—Metcalf, Erickson, Inc.		GENERAL ELECTRIC CO. AIR CONDITIONING DEPT.	183	PERMACEL TAPE CORP.	78
AMERICAN PRESIDENT LINES, LTD.	182	Agency—Ruthrauff & Ryan, Inc.		Agency—The Atidim Knott Co.	
Agency—Kenyon & Eckhardt, Inc.		GENERAL ELECTRIC CO.	130-131	PITNEY-BOWES INC.	14
AMERICAN TELEPHONE & TELEGRAPH CO.	42	Agency—G. M. Basford Co.		Agency—L. E. McGivern & Co., Inc.	
Agency—Cunningham & Walsh, Inc.		GERLINGER CARRIER CO.	176	PITTSBURGH CORNING CORP.	48
AMERICAN TELEPHONE & TELEGRAPH CO. I	1	Agency—Hal Short & Co., Inc.		Agency—Ketchum, MacLeod & Grove, Inc.	
Agency—N. W. Ayer & Son, Inc.		THE B. F. GOODRICH CHEMICAL CO.		PITTSBURGH PLATE GLASS CO. (PAINT DIV.)	39
AMERICAN TRUCKING ASSOCIATION, INC.	12	Agency—the Griswold-Eshleman Co.		Agency—Maxon, Inc.	
Agency—J. Walter Thompson Co.		GOODRICH RUBBER CO., INC. (OHEM DIV.)		PORTLAND CEMENT ASSN.	56
ANACONDA COPPER MINING CO. & SUB. CO.	4-5	Agency—The Atidim Knott Co.		Agency—Roche, Williams & Cleary, Inc.	
Agency—Kenyon & Eckhardt, Inc.		THE GRAY MFG. CO.	81	THE WILLIAM POWELL CO.	93
ANDREWS-ALDERFER	167	Agency—Kudner Agency, Inc.		Agency—The Ralph H. Jones Co.	
Agency—Grey Adv. Agency, Inc.		HAMMERMILL PAPER CO.	118	PRESSED STEEL TANK CO.	90
ANTI-CORROSIVE METAL PRODUCTS, INC.	134	Agency—Batten, Barton, Durstine & Osborn, Inc.		Agency—Friedman Co.	
Agency—Woodard & Voss, Inc.		HARVEY ALUMINUM (DIV. OF HARVEY MACHINE CO., INC.)		RAPIDS-STANDARD CO., INC.	10
ANSCO STEEL CORP.	155	Agency—Hixson & Jorgensen, Inc.		Agency—Wesley Aves & Assoc., Inc.	
Agency—N. W. Ayer & Son, Inc.		HEWLETT-PACKARD CO.	153	RECORDATOR CORP. (SUB. OF EASTMAN KODAK)	163
ARMSTRONG CORK CO.	47	Agency—L. E. Cole Co.		Agency—J. Walter Thompson Co.	
Agency—Batten, Barton, Durstine & Osborn, Inc.		THE HEWITT CORP.	94	REMINGTON ARMS CO.	34
ARMSTRONG MACHINE WORKS.	162	Agency—Franklin Adv. Co.		Agency—Batten, Barton, Durstine & Osborn, Inc.	
Agency—Russell T. Gray, Inc.		HILTON HOTELS CORP.	85	REMINGTON RAND, INC.	151
ATLAS POWDER CO.	15	Agency—Needham & Griswold, Inc.		Agency—Leeford Adv. Agency, Inc.	
Agency—the Aitkin-Knott Co.		THE HOME INSURANCE CO.	177	REPUBLIC STEEL CORP.	174-175
AVCO MFG. CORP. (CROSLAY DIV.)	145	Agency—Albert Frank-Guenther Law, Inc.		Agency—McGraw-Hill Fewsmit, Inc.	
Agency—Ralph H. Jones Co.		HOOKER ELECTROCHEMICAL CO.	173	RIEGLER PAPER CORP.	70
BABCOCK & WILCOX CO.	152	Agency—Charles L. Rumrill & Co., Inc.		ROME CABLE CORP.	136
Agency—Michel-Cather, Inc.		INLAND STEEL CO.	13	ROYAL TYPEWRITER CO., INC.	40
BAKELITE CO. & UNION CARBIDE CARBON CORP.	149	Agency—Weiss & Geller, Inc.		Agency—Young & Rubicam, Inc.	
Agency—J. M. Mathes, Inc.		INTERNATIONAL BUSINESS MACHINES CORP.	109	RUDD-MELIKIAN, INC.	124
BANK OF AMERICA.	157	Agency—Cecil Presbury, Inc.		Agency—Gear-Marston Adv.	
Agency—Chair R. Sturt		INTERNATIONAL SALT CO., INC.	185	SALEM-BROSUUS, INC.	58
BARRETT DIV., ALLIED CHEMICAL & DYKE CORP.	49	Agency—Seidenfeld, Beck & Werner, Inc.		Agency—Bond & Starr, Inc.	
Agency—McCann-Erickson, Inc.		INVINCIBLE METAL FURNITURE CO.	94	SAN JOSE CHAMBER OF COMMERCE	172
BAY STATE ABRASIVE PRODUCTS CO.	82	Agency—Klau-Van Pietersom-Dunlap, Inc.		Agency—Long, Adv. Service	
Agency—Berg-Marshall, Inc.		JESSOP STEEL CO.	57	SCIENTIFIC AMERICAN	138
BELDEN MFG. CO.	8	Agency—Boni & Starr, Inc.		Agency—Royal & De Guzman	
Agency—the Foshoff Adv. Agency, Inc.		KEARNEY & TRECKER CORP.	127	SELAS CORP. OF AMERICA	43
BEST BRAGG CORP.	108	Agency—Klau-Van Pietersom Dunlap, Inc.		Agency—A. E. Aldridge Assoc.	
Agency—Gardiner Adv. Co.		KEYSTONE STEEL & WIRE CO.	44	SHAW BARTON, INC.	110
BORG-WARNER CORP.	80	Agency—MacAdy Adv. Agency, Inc.		Agency—Munn, Mulay, & Nichols, Inc.	
Agency—Rogers & Smith		LINDE PRODUCTS CO.	140	SIER-BATH GEAR & PUMP CO., INC.	154
BOSTITCH, INC.	161	Agency—J. M. Mathes, Inc.		Agency—Thome & Gill	
BRAD FOOTE GEAR WORKS, INC.	84	LION OIL CO.	105	SPERRY GYROSCOPE CO.	75
Agency—Reincke, Meyer & Finn, Inc.		Agency—Ridgway Adv. Co.		Agency—Reach, Yates & Mattoon, Inc.	
BRISTOL BRASS CORP.	189	LONG & BRAINERD	84	A. E. STALEY MFG. CO.	123
Agency—Sutherland-Abbott		Agency—Ernest Chabot Adv. Agency		Agency—Ruthrauff & Ryan, Inc.	
BROOK MOTOR CORP.	192	THE LOUDEN MACHINERY CO.	73	STATE OF GEORGIA, DEPT. OF COMMERCE	164
Agency—Walton Briggs, Inc.		Agency—Kirkgasser-Drew		Agency—Eastburn & Siegel Adv.	
BROWN BOWERI CORP.	193	LURIA ENGINEERING CORP.	76	STONE CONTAINER CORP.	50
Agency—Cordin Adv. Agency		Agency—Storm & Klein, Inc.		Agency—A. Martin Rothhardt, Inc.	
BULLARD CO.	67	MARINE MIDLAND CORP.	19	SYLVANIA DIV., AMERICAN VISCOSIC CORP.	139
Agency—Park City Adv. Agency, Inc.		Agency—Batten, Barton, Durstine & Osborn, Inc.		Agency—J. M. Mathes, Inc.	
BUNDY TUBING CO.	171	MARSHALL & ISLEY BANK	59	THE TEXAS CO.	24
Agency—Brooke, Smith, French & Dorrance, Inc.		Agency—Barnes Adv. Agency, Inc.		Agency—Cunningham & Walsh, Inc.	
BURROUGHS CORP.	188	MCGRAW-HILL BOOK CO., INC.	184	THILMANY PULP & PAPER CO.	121
Agency—Campbell-Ewald Co.		MCLOUTH STEEL CORP.	20	Agency—Jack C. Wemple	
CADILLAC PLASTIC CO.	162	Agency—Dennman & Baker, Inc.		THE TORRINGTON CO.	110
Agency—W. B. Doner & Co.		MEAD CORP.	135	Agency—Hazard Adv. Co.	
CHICAGO RAWHIDE MFG. CO.	88	Agency—Gill & Ross		TORRINGTON MANUFACTURING CO.	146
Agency—Wesley Aves & Assoc., Inc.		MINNESOTA MINING & MFG. CO.	35	Agency—Graceman Adv. Inc.	
CLARK INDUSTRIAL TRUCK DIV. CLARK EQUIPMENT CO.	86-87	Agency—MacManus, John & Adams, Inc.		TRANS WORLD AIRLINES, INC.	64
Agency—Clemens Co.		MONSANTO CHEMICAL CO.	65, 95-100	Agency—Batten, Barton, Durstine & Osborn, Inc.	
CLEVELAND ELECTRIC ILLUMINATING CO.	16	Agency—Gardner Adv. Co.		TWIN DISC CLUTCH CO.	132
Agency—D'Angelo Advertising Co.		NATIONAL CITY BANK OF NEW YORK	77	Agency—Spencer Curtis, Inc.	
CLUES (CLASSIFIED ADVERTISING)	194	Agency—Batten, Barton, Durstine & Osborn, Inc.		U. S. LEASING CORP.	170
COLUMBIA-SOUTHERN CHEMICAL CORP.	178	NATIONAL CYLINDER GAS CO.	129	Agency—Brooke, Smith, French & Dorrance	
Agency—Ketchum, MacLeod & Grove, Inc.		Agency—Kirkgasser-Drew Adv. Agency		UNITED STATES RUBBER CO.	181
COMMERCIAL CREDIT CO.	141	NATIONAL FOLDING BOX CO.	83	Agency—Fletcher D. Richards, Inc.	
Agency—Van Sant, Dugdale & Co., Inc.		Agency—Smith, Hagel & Snyder, Inc.		VEEDER-ROOT, INC.	2
CONNECTICUT TELEPHONE & ELECTRIC CORP.	172	NATIONAL HOMES CORP.	61	Agency—Sutherland-Abbott	
Agency—The Haydon Co., Inc.		Agency—Applegate Adv. Agency		VIRGINIA ELECTRIC & POWER CO.	72
CONNING GLASS WORKS	181	NATIONAL PNEUMATIC CO., INC.	150	Agency—Advertising, Inc.	
Agency—Charles L. Rumrill & Co., Inc.		Agency—Henry A. Loudon Advertising, Inc.		VITRO CORP. OF AMERICA	110
CRANE CO.	133	NATIONAL STARCH PRODUCTS, INC.	116	Agency—Boxall & Jacobs, Inc.	
Agency—The Bingham Co.		Agency—G. M. Basford Co.		WAGNER ELECTRIC CORP.	107
CROWN CORK & SEAL CO., INC.	136	NATION'S BUSINESS	111	Agency—Arthur R. Mogge, Inc.	
Agency—The Clements Co.		Agency—Royal & De Guzman Adv.		S. D. WARREN CO.	89
CUNNINGHAM & WALSH, INC.	62	NEBRASKA RESOURCES DIV.	186	Agency—St. George & Keyes, Inc.	
Agency—Cunningham & Walsh, Inc.		Agency—Ayers, Swanson & Assoc., Inc.		WARREN WEBSTER & CO.	3
CUTLER-HAMMER, INC.	120	NETHERLANDS INDUSTRIAL INSTITUTE	66	Agency—William Jenkins Advertising	
Agency—Kirkgasser-Drew		Agency—Oliver-Beckman, Inc.		WELSBACK CORP.	11
DAVISON CHEMICAL CO. DIV. OF W. R. GRACE & CO.	68	NEW DEPARTURE DIV., GENERAL MOTORS CORP.	9	Agency—Arndt-Preston-Chaplin-Lamb & Keen, Inc.	
Agency—St. George & Keyes, Inc.		Agency—D. P. Brother & Co., Inc.		THE WEST PENN ELECTRIC CO., INC.	89
DETROIT STEEL PRODUCTS CO.	148	N. Y. STATE DEPT. OF COMMERCE	48	Agency—Albert Frank-Guenther Law, Inc.	
Agency—Fuller & Smith & Ross, Inc.		Agency—Batten, Barton, Durstine & Osborn, Inc.		WESTINGHOUSE ELECTRIC CORP. (MICARTA DIV.)	106
DUVIBISS CO.	169			Agency—Fuller & Smith & Ross, Inc.	
Agency—Brooke, Smith, French & Dorrance, Inc.				WORTHINGTON CORP.	51
IE. DIEBOLD, INC.	71			Agency—James Thomas Chirurg Co., Inc.	
Agency—Penn & Hamaker, Inc.					
F. W. DODGE CORP.	182				
Agency—Albert Frank-Guenther Law, Inc.					
E. I. DUPONT DE NEMOURS & CO.	23, 112-113				
Agency—Batten, Barton, Durstine & Osborn, Inc.					

What Good Is an Asian Marshall Plan?

It comes as no surprise that Premier Shigeru Yoshida of Japan has urged that a \$4-billion a year program patterned on the Marshall Plan be initiated to save the free countries of Asia from the domination of Red China. Considering that Asia's present predicament is somewhat comparable to Western Europe's plight when we began Marshall aid, Yoshida's proposal was, in fact, inevitable.

But it is also no surprise that the American public fails to show instantaneous enthusiasm over a Marshall Plan for Asia. We have already seen our military aid to China go down the drain. And many are disappointed with our aid to Europe, perhaps because we were victims of the human but hardly realistic notion that our dollars could buy affection for us as well as recovery for Europe. From this standpoint, the Marshall Plan does not appear to have paid off.

Yet we should not forget that our aid has achieved some notable results. It can no longer be said, for instance, that when the U.S. sneezes, Europe catches pneumonia. Europe has made an amazing recovery, and demonstrated its economic health this past year by continuing to grow while we were in a recession.

Despite occasional misunderstandings, moreover, the U.S. and Western Europe have achieved real unity in the struggle against Communism. Far from standing alone, we are joined together with much stronger allies than ever before, mainly as a result of our foresight and generosity.

Looking at the total picture, then, the Marshall Plan must be considered a good investment. And if we could assure the same results in Asia through a big aid program—although there is real doubt that as much as \$4-billion a year could be constructively absorbed—it would be money well spent.

At present, Asia is like an awakening giant, stirring with enormous perils and potentialities. Red China is just at the beginning of an industrial revolution and it does not take much imagination to picture her a few years hence, with the power to engulf the entire continent.

Asia under Communist domination could be no less fatal for us than an enslaved Europe. But resistance depends on raising the standard of living in the free nations of Asia who now seek to align themselves with the West. Without our help in realizing their legitimate and not always logical aspirations, they will be pulled, unwillingly, toward the magnetic center of Red China.

Premier Yoshida's solution calls for an expenditure ten times greater than the present \$400-million now going to Asia. Of course, there's no use considering this enormous sum unless the Asians show their determination to fight Communism and to make efficient use of the aid. Their position must be made clear. As far as the U.S. is concerned, the stakes are so great and the

penalties for failure so severe, that we believe Yoshida's proposal must be given careful and sympathetic examination by the American people and the Administration.

Business and Politics

The successful businessman does not always make the successful politician. Those members of the American business community who have put their talents at the disposal of the Eisenhower Administration have discovered this the hard way. Some, of course, have been able to operate effectively, but many have returned to private enterprise, often disillusioned or disgusted with working in a political atmosphere.

An explanation of why executives do not always make good in government is offered by Robert G. Bradford, former Governor of Massachusetts, in the Harvard Business Review. He points out that business and politics are fundamentally different fields calling for different attitudes and qualities. Unless the businessman appreciates this, executives "who take government positions, the corporations 'lending' them, and the general public are all in for some rude shocks."

As he sees it, the businessman must recognize that politics "is certainly not a business, and it cannot be run like one." In addition, our democracy is a complicated political mechanism that "requires a number of skilled politicians around to keep it running."

These important distinctions are rarely made by businessmen in government who regard politics as something beneath them, and when things go wrong take comfort in the fact that they are not politicians. Bradford notes that this attitude "would not hold up if the job were plumbing and, after turning on the faucets, an executive admitted he was no plumber."

The politicians deserve understanding and respect by entirely different yardsticks than the businessman uses. That's because the end product of politics is often "the interpretation of hopes and aspirations" rather than something that can be counted or measured.

Even though we enjoy a government of law, not of men, the functioning of our great democratic machine depends on "human forces." The politician, not the businessman, has learned to resolve and reconcile these forces through expediency and compromise.

Bradford makes clear that "there is a profound difference between expediency and lack of principle." The test is to be expedient on little things, to tack this way and that with the prevailing winds, but never to stray off the main course, which would be giving in on the big things.

We think this is sound advice. If the businessman wants to make good in government, he must keep true to his principles by using the politician's techniques.

Harvey Aluminum will reduce your costs

HERE'S HOW one manufacturer

CUT COSTS 62%

CUT MACHINING OPERATIONS 45%

INCREASED PRODUCTION 38%

Working closely with the engineers of an aircraft component manufacturer,* Harvey engineers designed a flush-mounted safety lock for external aircraft access doors. By using aluminum extrusions rather than machining the bolt and trigger from bar stock, production costs were reduced by 62%. The use of extrusions virtually eliminated the costly machining operation and at the same time stepped up the unit rate of production approximately 38%. If you use structural metal in your business, Harvey Aluminum extrusions will help reduce your costs. We hope you'll get in touch with a Harvey Field Engineer without delay.

*Name on request

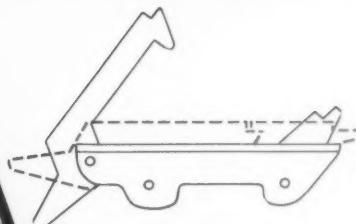


The men at Harvey are dedicated to the idea of improving your product while reducing your costs. And remember, Harvey prepays the freight to your plant.

MAKING THE MOST OF ALUMINUM...FOR EVERYONE

HARVEY
Aluminum

HARVEY ALUMINUM SALES, INC.
TORRANCE—LOS ANGELES, CALIFORNIA
BRANCH OFFICES IN PRINCIPAL CITIES



The safety latch is made up from the cross section of two aluminum extrusions. Harvey engineers bypassed machining, casting and forging to cut the client's costs.



An independent facility producing special extrusions, press forgings, bar stock, forging stock, tubing, impact extrusions, aluminum screw machine products, and related mill products.

Another new development using

B. F. Goodrich Chemical raw materials



*B. F. Goodrich Chemical Company does not make
this rigid vinyl pipe. We supply the Geon resin only.*

Right in the groove—rigid vinyl pipe

THIS is a part of a 3-mile installation of rigid vinyl plastic pipe in the oil fields of Ellis County, Kansas. It carries hot salt water—a corrosive by-product of crude oil—from a separating tank to a deep disposal well.

Oil company engineers chose *high-impact* rigid vinyl pipe made from Geon resin because it won't corrode, can stand rough handling and has better chemical resistance. Another advantage: Money is saved in ditching operations for other pipe made

of brittle materials must be cradled in a more costly graded ditch to avoid damage.

This high-impact rigid vinyl pipe has so many advantages that it may suggest a use to you or may give you an idea for an equally successful product. There are scores of other uses for Geon materials—from rigid sheets and panels to flexible colorful upholstery, wire insulation, durable flooring, sponge and many more. For information on Geon materials,

please write Dpt. A-12, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. Cable address: Goodchemco. In Canada: Kitchener, Ontario.



GEON RESINS • GOOD-RITE PLASTICIZERS . . . the ideal team to make products easier, better and more saleable
GEON polyvinyl materials • HYCAR American rubber • GOOD-RITE chemicals and plasticizers • HARMON colors